County of Maui
Short Range Transit Plan
Final Report

URBITRAN REPORT

Submitted to
County of Maui
Department of Transportation

Submitted by
Urbitran Associates, Inc.

In association with
Abrams-Cherwony & Associates, Inc.
Mundle & Associates, Inc.
Form

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Maui County Short Range Transit Plan

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EXECUTIVE SUMMARY

The Maui County Department of Transportation (MDOT) retained a consulting team led by Urbitran Associates to prepare the 2006-2010 Maui County Short Range Transit Plan (SRTP). Urbitran Associates was assisted by Abrams-Cherwony & Associates, Mundle & Associates and Form, Inc. The project began in October 2004 and involved an extensive community outreach process, technical analysis, and coordination with key stakeholders, including the Maui County Department of Transportation, to develop solutions to transportation needs in the county. The SRTP contains planning, policy and financial components that provide direction for implementing a public transportation system.

Maui County is a unique environment in which to operate public transit service, due in large part to the island geography and its multi-faceted economy. The subsequent request to complete this project, a Short Range Transit Plan (SRTP) for the County of Maui, was made for practical reasons – to provide additional detail and specificity on how public transit could be implemented and what it would take to do so. Public transit supplies a fundamental public good – the ability for anyone, regardless of age, ethnicity, income, or physical capability to participate in society. Without reliable transportation, individuals are unable to access employment and educational opportunities, medical facilities, social service programs, recreational areas, and shopping centers, and they are isolated from family and friends.

The components of this plan: establishing a brand for the service; laying out a five-year implementation plan for transit and complementary paratransit, as required by the Americans with Disabilities Act (ADA); detailing the necessary capital and operating resources to sustain the program; and developing the Maui Department of Transportation (MDOT) to lead these efforts, are all necessary steps towards attaining a long term and viable public transit program for the County.

The following summarizes the SRTP's findings and recommendations.

A. Existing Conditions

Maui County is comprised of the islands of Maui, Moloka'i, Lana'i, and Kaho'olawe, which together had a population of 128,094 in 2000. Currently, Maui is the only island with a fixed route public transit system and it has the most extensive specialized transit services. The Island of Maui is the largest in the County, with an area of 727 square miles. Maui is also the county's economic center and the county seat. The majority of the island's population is concentrated within a few towns in the central, south, and west areas of the island. Eleven percent of the County's population is age 65 or older and 20 percent are age 55 or older, while eight percent of the population is under five years of age. Additional demographic characteristics of the county are presented in Chapter 2.

The Island of Maui includes several major trip generators or activity centers - visitor lodging, medical and social facilities, shopping areas, and recreation areas. While the tourist industry has significantly influenced land use development on Maui, public transit has not yet captured a significant share of this important market. Convenient transit service and a comprehensive marketing campaign will be critical to increasing the share of tourists and part-year residents who use transit.

Understanding where low-income and transit-dependent populations live and work is vital to developing transportation solutions that meet their unique needs. To estimate the relative transit needs of communities in Maui County, ordinal ranking was used to create a "transit needs index" based on a combination of demographic variables. On Maui, the highest demand for transit is expected in Kahului and Wailuku, followed by Kahana and Lahaina, and Kihei, Napili, and Pukalani. Based on the findings of the transit needs assessment, there is limited demand for fixed route transit on Moloka'i and Lana'i. As such, subsequent analyses focus on the Island of Maui, where demand is expected to be the highest and thus the most logical starting point for a sustained public transportation program.

The physical constraints of the Maui roadway network coupled with rapid population growth have contributed to the County's increasing traffic congestion. Public transit can help to alleviate the traffic congestion by providing an alternative to the private automobile. However, it is important to keep in mind that congestion can negatively impact a public transit system's reliability, on-time performance, and ability to operate effectively.

As of July 1, 2004, the Maui Public Transit system consists of three transit routes operated by Roberts Tours and two transit routes operated by MEO. All of these routes are completely subsidized by the County of Maui. These routes provide service between various communities in Central, South, and West Maui. All of the routes operate Monday through Saturday, with fares ranging from free on the Central Maui routes to $1.00 to $2.00 on the South and West Maui routes.

B. Public Outreach

Public input is a vital component to any successful transit study. In order to solicit input from as many people as possible, a variety of outreach techniques were used. They include:

- Stakeholder interviews,
- Drop-in sessions with passengers and drivers,
- Public workshops, and
- Comment forms and letters.

The public involvement techniques employed during this project were crucial to spreading the word about transit service in Maui County, incorporating key concerns and ideas into the planning process, and generally building interest, support, and consensus among stakeholders and potential customers. These outreach efforts collected input from over 300 people and garnered two editorials and several front page articles in the Maui News.

According to input received through the various outreach efforts, the following issues are the most pressing in Maui County:

Expanded transit service coverage,

Increased transit frequency,

Inadequate youth transportation, and

Need for extensive marketing of the public transit service.

C. Goals, Objectives, and Performance

Initiating a new transit service provides the opportunity to revisit transportation and land use issues through the establishment of goals and objectives for transit in Maui. The goals and objectives outlined below are based on a review of planning and policy documents for the county and discussions with Maui Department of Transportation and multiple stakeholders. These goals and objectives are expected to evolve over time, but those presented below offer a starting point for Maui's transit service.

The following goals reflect a mission to provide high quality, fixed route and paratransit mobility at a reasonable cost.

- Provide a transit system that effectively meets community needs and improves the quality of life
- Operate and manage the transit system efficiently
- Provide accessible transit services

In support of these goals, a series of objectives and performance measures have been developed to help MDOT monitor its performance. These objectives, performance measures and their corresponding standards are detailed in Chapter 4. MDOT has the following vision for public transit within the county:

- Create a rider-friendly public transit system that is fully integrated into the community.
- Actively promote public transit use as an alternative to the single occupant vehicle to increase the percentage of trips taken on public transit.
- Develop a stable and adequate funding platform for public transit to fund both capital and operating costs.
- Facilitate transit-friendly development throughout the county.

Factors that should be considered in developing a successful public transit system include the following:

Land use interface - Future public transit systems and service expansions should be planned to reflect, and positively influence, land development, potential commute patterns, and the demographic and economic future of the county. Coordinating development patterns and the design of public transit systems supports the successful performance of public transit while positively impacting traffic congestion, air quality, and community cohesiveness. As the county develops, land should be identified, purchased, and conserved to support future transit corridors.

Convenience – Public transit services must be convenient and user friendly to attract passengers and to give them additional mobility choices.

Cost effectiveness – Existing public transit services must be continually reevaluated through the Maui County planning process to assure: cost effectiveness and their ability to meet changing public needs. Similarly, new

services should be designed to effectively and efficiently match service demand with service supply.

Coordination – Explore resource-sharing opportunities with other transportation providers, including MEO, in areas such as fleet, fuel, dispatch, maintenance facility, training, etc. with the goal of improving efficiency and effectiveness. Appropriate sharing of resources can improve mobility options, reduce duplication and decrease costs.

Maximize work trip service effectiveness – Explore commute and express transit services and rideshare options to respond to the more predictable home to work trip patterns.

Multi-modal linkages – Bicycling is an increasingly popular recreational activity and mode of transport on Maui. To promote the expanded use of bicycling and the reach of the transit system itself, all public transit vehicles should be equipped with bike racks. This policy should be maintained and bike access facilitated through actions such as providing bike lockers and storage at key stops. Racks should also be able accommodate surfboards and boogie boards, making transit an attractive alternative for the county's youth.

D. Service Improvement Program

Chapter 5 represents the culmination of our findings from the analysis of existing conditions, community outreach efforts and evaluation of current transit services and provides the guidance needed to implement a comprehensive public transit system and complementary ADA paratransit program. The five sections in the chapter and recommendations are as follows:

Service Administration discusses and recommends how the County ought to administer and operate the transit and paratransit services. The County should own and administration the transit system and contract the day-to-day operation of the service to a private contractor.

Organizational Structure outlines the staffing requirements to administer the services and describes the various roles and responsibilities for staff. In order to effectively administer the transit service, MDOT should establish a transit division whose duties are defined separately from general DOT functions. This does not preclude DOT staff from filling the described roles, but clarifies the roles and responsibilities of staff with regard to the transit service. Recommended transit staff positions include a transit manager, ADA program manager, marketing program coordinator, and transit analyst.

Fixed Route Service Plan details all of the service recommendations for the public transit service – from specific route alignments and service span recommendations, to how the services should be phased in over the five-year timeframe.

- Based on existing transit service, the analysis of transit needs, and the island's geography there are three types of services recommended in this plan.

  Fixed-Route Circulator Service. Fixed-route, circulator service is the most appropriate service to operate in Central Maui. The local service will operate on two loops, one in Wailuku and one in Kahului, which provide coverage throughout Central Maui and connect persons to important destinations. These routes cover most of the stops currently served by Routes 1 and 2.

Islander Service. Islander service is regional, express bus service that connects communities on the Island of Maui with fixed route, limited stop service. Islander services will utilize Central Maui as a main hub and provide connections for workers and visitors to communities throughout the island. The islander routes will connect to the circulator routes and villager routes, as described below, to improve access to local destinations.

Villager Service. Service in Maui's outlying communities is referred to as "villager service" and has been designed to operate as deviated, fixed route service. These routes should be operated within communities that can support fixed-route transit service, but that do not require the same level of service as in Kahului and Wailuku. The villager routes will operate on a fixed schedule with a fixed alignment, but ADA-eligible passengers may request that the vehicle deviate up to ¾ of a mile from its alignment to pick them up or drop them off. The number of deviations allowed will depend on the particular route, specific deviation requests and the amount of time built into the schedule for such deviations.

- Two key hubs have been identified for this implementation plan. The primary hub, which will serve as the main transfer facility for all transit services, is the Queen Ka'ahumanu Center. A secondary hub will provide a transfer location between the south and west sides of the island. The current transfer location at the Maui Ocean Center in Ma'alaea should continue to fulfill this role.
- Based on Maui's employment patterns and the predominance of tourists, demand is expected to be fairly consistent throughout the week. Therefore, the service implementation plan recommends operation 365 days a year.

Complementary Paratransit Program explains the requirements for the ADA mandated complementary paratransit service, estimates demand for the service and recommends how the service should be operated.

- As an initial step in implementing service that complies with the Americans with Disabilities Act (ADA), Maui County should contact State of Hawaii and Federal Transit Administration officials and discuss the steps they are taking in developing the ADA plan.
- Maui County should form an ADA Consumer Advisory Committee to provide input on the ADA plan.
- Approximately 27,000 annual trips are estimated for the ADA paratransit system.
- The operation of ADA paratransit service should be contracted out to a service provider, such as MEO to contain costs.

Capital Investment Program describes all the capital elements needed to implement the public transit and complementary paratransit services – from benches to vehicles, estimates the requirements for Maui, and defines the corresponding cost implications.

- Maui's public transportation system will be phased in over the five years of this plan. The capital program is based on meeting the needs of the full expansion program in the last year, although equipment and facilities will be acquired throughout the plan's life.

- Transit vehicles require the largest capital expenditure for the service. For this reason, $5.4 million has been allocated to fund transit vehicles – including nine cutaways to initiate the new service and fourteen heavy-duty vehicles to sustain and expand the service.
- Financing the capital plan will be heavily dependent on local funds if federal money is not available. Therefore, Maui County should accept FTA Section 5309 funds to finance the purchase of new vehicles for the service and work on procuring additional funds in the future.
- $1,194,000 has been budgeted over the five years for basic elements such as bus stop signs, route and schedule information, information kiosks, passenger waiting benches and shelters, a transit center, bicycle racks, and public communications/information.

Capital purchases associated with the ADA mandated complementary paratransit service are described elsewhere.

E. Marketing Program

Fundamental to the success of the transit service is persistent and widespread marketing. Marketing and education includes the branding, dissemination of information on routes and schedules, as well as promotion of the service. Paramount to this is a strong, easily recognizable brand and identity.

In order to effectively market Maui's transit service, it is important to have the following supporting elements in place:

- Service identity and logo,
- Unique color scheme (to be painted on vehicles or applied as a bus wrap),
- A Web site with up-to-date information on the transit service,
- A centralized phone number with information for the public (e.g. MDOT or contractor's phone number),
- Passenger guide/brochure (maps and timetables), and
- Fare media, such as monthly passes, that can be sold at convenient locations, including: government offices and supermarkets.

"Maui Bus" was selected as the name for the County's transit service and the following logo was developed to create an identity for the service.

Figure ES – 1 Maui Bus Logo

F. Financial Plan

The financial plan includes a review of potential funding sources, operating and capital cost estimates, and revenue estimates.

- Category One Capital Needs – these items included passenger amenities (e.g., bus shelters, benches, and bike racks), public information infrastructure and signage. The total costs for these items were $1.19 million.
- Category Two Capital Needs – these items included vehicles, fixed facilities, fare boxes and communications systems. The total costs for these items were $5.5 million.
- Administrative Costs - these costs are calculated on the basis of $18,973 per peak vehicle, which is escalated at a rate of five percent per year through the remainder of the implementation period.
- Fixed-Route Transportation Costs – these costs are calculated on the basis of $47.25 per vehicle hour, which is escalated at a rate of five percent per year during the implementation period.
- ADA Transportation Costs – these costs are calculated on the basis of $20 per trip, which is escalated at a rate of five percent per year during the implementation period. ADA costs are based on ADA ridership demand in response to a full fixed-route service, with no route deviation. This is intended to be a conservative estimate to ensure adequate financing for the service.
- Marketing and Promotion Costs – these costs are assumed to be higher during the initial implementation in order for the County to establish a "brand identity" for the transit service. Costs are reduced in later years as the system matures.
- Professional Services – these costs are added for services such as Web site development, planning studies, onboard surveys, fare studies that the County might want to undertake as each year's budget might permit.

In addition to the operating and capital budget, a recommended fare structure for the service plan is presented in Chapter 7. The fare structure for the proposed service plan attempts to conserve as much of the existing fare structure as possible, while at the same time developing a simple zone structure that can be modified in the future as needed.

- All local routes have a single fare of $1.00 with free transfers between them.
- Regional services have a single fare of $2.00 with no transfers.
- Daily and monthly passes should be offered, as well as 10-ride punch passes. Monthly passes for the general public cost $25 for local service and $45 for regional service. The corresponding discounted passes cost $15 and $30, respectively.
- Reduced passes are available to senior citizens, students, and persons with disabilities. Children 5 years and younger ride free of charge when accompanied by a fare-paying adult.

G. Conclusion

There is no doubt that the community, which includes residents and visitors, wants additional transit service. Although the network of specialized transit services provides a lifeline for specific populations, there is a growing need and demand for transit service that is available to everyone, according to their own schedule. Meeting these needs and answering these demands, requires the political and financial support of the Mayor and the County Council. To date, the transit service has largely been a reaction to County needs, acting now to expand the service and build a solid transit system will allow the County to respond proactively to its changing travel needs as they occur in the future.

CHAPTER 1: MOTIVATION FOR PROJECT

Maui County is a unique environment in which to operate public transit service, due in large part to the island geography and its multi-faceted economy. This issue was most recently explored in the 2003 *Public Transportation Plan for the Island of Maui.* The subsequent request to complete this project, a Short Range Transit Plan (SRTP) for the County of Maui, was made for practical reasons – to provide additional detail and specificity on how public transit could be implemented and what it would take to do so. But there are also broader, policy-driven reasons to take the next steps in developing a public transit system.

Public transit supplies a fundamental public good – the ability for anyone, regardless of age, ethnicity, income, or physical capability to participate in society. Without reliable transportation, individuals are unable to access employment and educational opportunities, medical facilities, social service programs, recreational areas, and shopping centers, and they are isolated from family and friends. There are also other quality of life benefits to public transit systems such as reduced traffic congestion, improved air quality, and an alternative for those who are unable or choose not to drive themselves. Those without a vision for the future, or an understanding of the importance of mobility options, might question this commitment based on the small percentage of the population that might use the services and the costs necessary to provide usable, effective service. However, embracing a broader perspective that includes mobility as a fundamental public good would logically include public transportation as an integral part of the County infrastructure.

Although this SRTP does not address longer-term transportation alternatives for the County, it should be clear in Maui, as it is across the country, that there are limits to building your way out of traffic congestion. Similar to recent discussions about access to Haleakala and Hana, future solutions need to include plans to accommodate demand through the use of public transportation. In fact, the argument could be made that the County of Maui is very similar to a national park and that access to the mountains, beaches and scenic destinations should be managed to balance the attributes that will continue to attract tourist, yet preserve mobility for residents.

The SRTP contains planning, policy and financial components that provide direction for implementing a public transportation system. Pursuing this direction requires the political and financial commitment of the Mayor and County Council – to support the service and to commit the necessary resources to sustain it.

The components of this plan: establishing a brand for the service; laying out a five-year implementation plan for transit and complementary paratransit, as required by the Americans with Disabilities Act; detailing the necessary capital and operating resources to sustain the program; and developing the Maui Department of Transportation (MDOT) to lead these efforts, are all necessary steps towards attaining a long-term and viable public transit program for the County. This plan comes at a time when the short-term future of transportation funding is unclear. At the federal level, the reauthorization of the Surface Transportation Act has been stalled by a debate between members of Congress who see the benefits of expanding the federal commitment to transportation and the Administration that has indicated it will not approve any plan that increases the deficit. At the same time, over eighty percent of local ballot initiatives expanding public

transportation services and funding were approved during the November elections – a clear signal that voters support efforts to improve transportation.

The status of federal, state and local public transportation issues is relevant to Maui County because securing additional funding will facilitate the implementation of the SRTP and help sustain the operation of transit service. Funding for public transportation typically consists of traditional and non-traditional sources. Maintaining awareness of national actions and trends can significantly assist agencies in adapting to these actions and trends. For example, last year President Bush signed an executive order directing ten federal departments to develop a plan to better coordinate public transportation and health and human service transportation. This directive was made in response to a Government Accountability Office (GAO) study that identified 62 separate federal programs providing transportation services to the transportation disadvantaged in those ten departments.

As an initial response, the Federal Transit Administration (FTA) created the United We Ride program, which has provided informational materials and start-up grants to state and local agencies. Maui, through the excellent array of services provided by Maui Economic Opportunity, Inc. (MEO), has already established itself as a leader in transportation coordination. At the federal level, the lead on coordination will be through the U.S. Department of Transportation and the FTA. Thus, establishing MDOT as the local lead on transportation coordination would be consistent with the federal policy direction. This in turn would position MDOT to participate in future policy and funding activities. This is but one example of how MDOT, as the lead transit agency, could enhance existing and future programs to meet requests for service while maximizing external funding.

Another way to maximize transportation service for the County while minimizing costs is to maintain private sector and nonprofit participation in the provision of transportation. Maui has a long history of privately provided transportation that serves a variety of markets, from commuters to tourists. Subsidizing public services that compete with private ones will ultimately cost the public more and potentially reduce the amount of service. The SRTP has been crafted to allow for the continued operation of those services to complement public transit. Just as the potential exists for MDOT to coordinate public and human service transportation, the potential also exists for MDOT to work with the private operators to integrate their services with public ones. This could be done through strategic planning and by maintaining a comprehensive public information program for transportation. Better communicating the array of transportation services will enhance the overall usability of the services and their integration.

The success of public transit depends on the service being useful to a range of users – from commuters, to tourists, to the general public for a variety of trips – from work, to shopping, to recreation. The proposed services are designed to capture demand for public transportation by the following user groups:

- Residents in lower density rural areas,
- Residents and workers in the higher density communities of Wailuku and Kahului,
- Residents and tourists in Kihei and Lahaina, and
- Everyone traveling across the island between Central, West, and South Maui.

These services are designed to meet the travel needs of both residents and tourists. Because the local economy is closely tied to tourism, work and other trips regularly occur every day, and as such, the service plan recommends operating service seven days a week. Likewise, the hours of service have been developed to accommodate the needs of commuters, students, residents and tourists.

The issues and recommendations presented here are discussed in greater detail in the following chapters.

CHAPTER 2: EXISTING CONDITIONS

The Maui County Department of Transportation (MDOT) retained a consulting team led by Urbitran Associates Inc. to prepare the 2006 to 2010 Maui County Short Range Transit Plan (SRTP). Abrams-Cherwony & Associates, Inc., Mundle & Associates, and Form, Inc. assisted Urbitran in developing the plan. The project began in October 2004 and involved an extensive community outreach process, technical analyses, and coordination with key stakeholders, including MDOT, to develop solutions to the identified transportation needs.

This chapter provides background information on the history of public transportation in Maui, service area characteristics, MDOT's organizational structure, and public and specialized transit services currently in operation.

A. History of Maui Public Transit

Public transit service began in Maui County in 1992 with two fixed routes running in Central Maui. These routes were, and continue to be operated by Maui Economic Opportunity, Inc. (MEO). The fixed route service currently operating in Maui County began in August 2002. Five routes operated on the Island of Maui at the service's inception. Due to an increase in operating costs by the contracted operator, Akina Aloha Tours, service was reduced to its current level in July 2004. The current public bus system is administered and funded by MDOT and operated through contracts to MEO and Roberts Hawaii. In addition to this service, a variety of privately owned and operated transit services have operated in a number of corridors and communities to varying degrees of success without public subsidy. These services include shuttles in Lahaina, Wailea and Ka'anapali, shopping shuttles, and fixed route service between Lahaina and Ka'anaplai.

In contrast to its fixed route services, Maui County has had dial-a-ride, also known as demand responsive, transit service since the 1980's. Although most of this service is specialized in nature, catering to qualifying populations, rural shuttles are available to the general public living in the communities served. The demand response service has been operated since its inception by MEO, a non-profit agency.

B. Service Area Characteristics

Maui County is comprised of the islands of Maui, Moloka'i, Lana'i, and Kaho'olawe, which together had a population of 128,094 in 2000. Currently, Maui is the only island with a fixed route public transit system and it has the most extensive specialized transit services. The Island of Maui's fixed route public transit system has a service area just over 45 square miles. Privately operated ferries and specialized transit serve both Moloka'i and Lana'i.

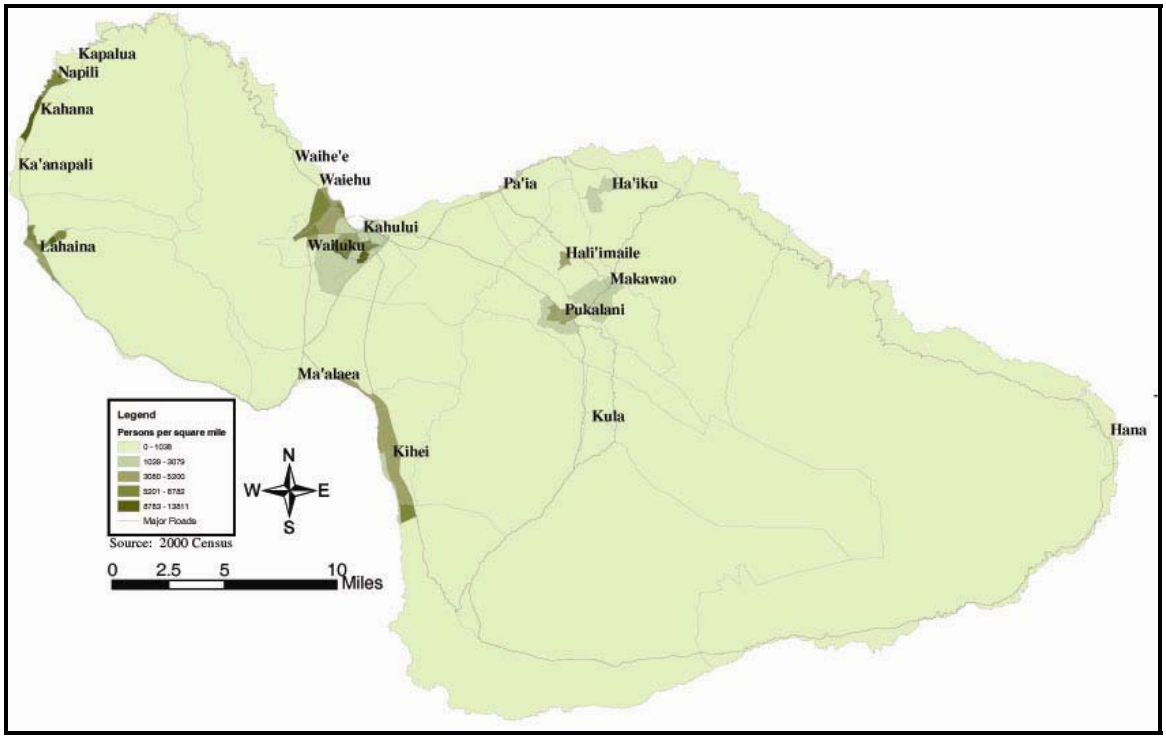
The Island of Maui is the largest island in the County, with an area of 727 square miles. Maui is also the county's economic center and the county seat. Maui has 120 miles of coastline, with 76 percent of the land area within five miles of the coast. Maui's distinctive shape is the result of two volcanoes: Haleakala (10,023 feet), creating the larger eastern part of the island, and the West Maui Mountains (5,778 feet), creating the western part. A low, flat cape connects the two volcanoes.

As mentioned previously, Maui County includes two other islands: Moloka'i and Lana'i. Moloka'i is the fifth largest island in Hawaii, with over 260 square miles. Located in the center of the eight Hawaiian Islands, Moloka'i is located 25 miles southeast of Oahu and a 25-minute flight from Maui. Lana'i is the sixth largest island in Hawai'i with a land area of 140 square miles. Lana'i is located south of both Moloka'i and Maui, and is located west of Kaho'olawe. Lana'i was once known as the pineapple island but is now known more for its tourist attractions.

1. Population

Population Density. According to Census 2000, the Island of Maui had a population of approximately 118,000 people, with an average population density of 162 persons per square mile. The majority of the population is concentrated within a few towns in the central, south, and west areas of the island. Maui has four population centers, each separated by at least 10 miles of open country. Kahului and Wailuku (Central Maui) share a border and together make up the most populous community with approximately 32,000 residents in 2000. Including nearby communities would increase its size by at least 10 percent. Both Kihei and the Upcountry, a mostly rural area with several villages (Pa'ia, Pukalani, Makawao, Kula), have populations approaching 17,000. Figure 2-1 plots the distribution of the population density on the Island of Maui, by census block groups in 2000. As illustrated by this figure, the highest population densities occur in the communities of Kahului, Wailuku, Kahana, Napili, Lahaina, and Kihei. There are also less dense concentrations around Pukalani, Makawao, Hali'imaile, Ha'iku, and Pa'ia.

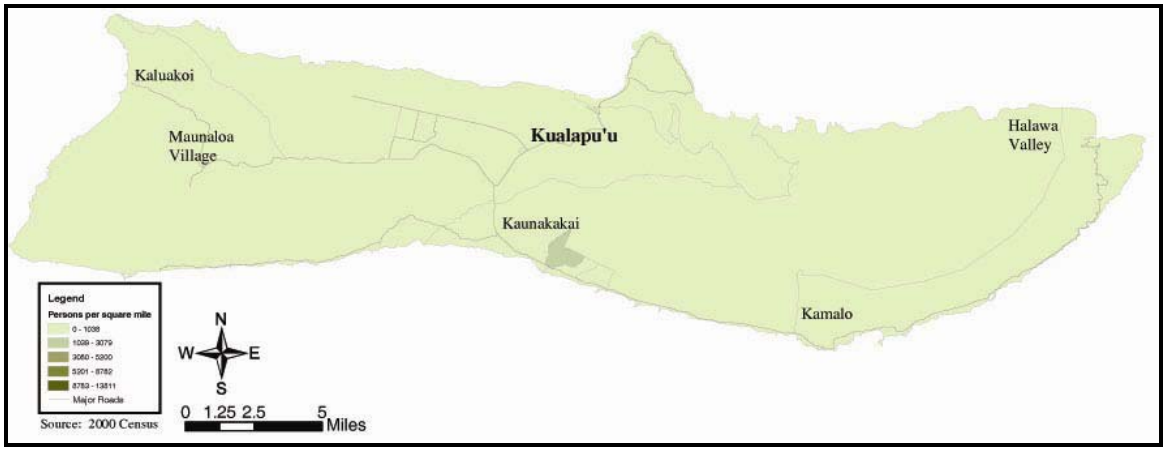
Figure 2-1 Island of Maui Population Density, 2000



Central Maui is the major industrial and commercial center for the County. This area has the largest business centers, two major shopping centers, the largest hospital facility, and the highest concentrations of residents. Areas in the south and west parts of the Island of Maui contain the majority of hotel and condominium units catering to the tourist population. Tourists increased the daily resident population on the island by approximately 40 percent in 2000. South and West Maui also include major recreation areas such as, beaches, shopping areas, and community centers.

The resident population of Moloka'i is slightly larger than 7,000 - half of whom live in or near the principal town of Kaunakakai. The island has a daily visitor population of approximately 900.[1] Figure 2-2 plots the distribution of the population density on the island of Moloka'i, by census block groups in 2000. As illustrated by this figure, the population densities are quite low – comparable to the densities of the more rural Upcountry communities on Maui. The only area with a higher density is in a block group in Kaunakakai.

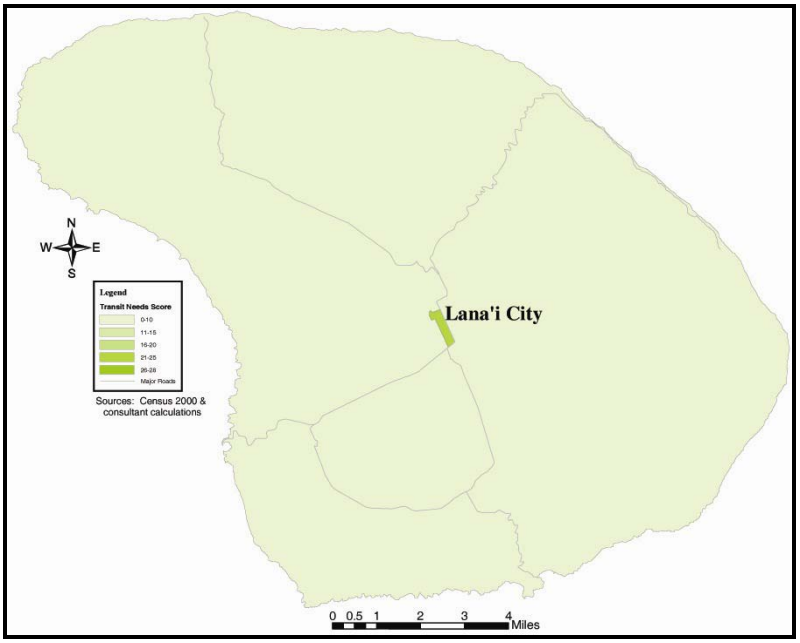
Figure 2-2 Island of Moloka'i Population Density, 2000



[1] SMS. "Maui County Community Plan Update Program: Socio-Economic Forecast." Planning Department of Maui. June 14, 2002.

The island of Lana'i has roughly 4,000 residents and an average daily visitor population of approximately 1,100.[2] Figure 2-3 plots the distribution of the population density on the island of Lana'i, by census block groups in 2000. As illustrated by this figure, the population densities on this island are also quite low. The only area with a higher density is in Lana'i City.

Figure 2-3 Island of Lana'i Population Density, 2000



Population growth and trends. Based on the 1990 and 2000 Censuses, the Island of Maui's resident population grew from 91,361 to 117,644. A significant portion of Maui's population is centered in the two regions on the island, Kahului (22%) and Makawao/Pukalani/Kula (18%). Other population concentrations are located in Wailuku (13%), Kihei (10%), and Wailea/Makena (9%). The remaining population, approximately 17 percent of the island's population, is scattered throughout the other regions: Kapalua (7%), Ka'anapali (5%), Lahaina (4%), and Hana (2%).

The Island of Maui experienced 29 percent growth in population over the previous decade, 1990-2000. In the coming decade population growth is expected to stabilize.[3] The expected resident population growth is 9 percent between 2000 and 2005, and 8 percent between 2005 and 2010. Table 2-1 illustrates the growth trends by region, projected between 2000 and 2010.

[2] Ibid.
[3] SMS. "Maui County Community Plan Update Program: Socio-Economic Forecast." Planning Department of Maui. June 14, 2002.

Table 2-1 Resident Population in Maui by Region; 1990, 2000, 2005, 2010

Region	Population				Percent Change		
	1990	2000	2005	2010	1990-2000	2000-2005	2005-2010
Hana	1,895	1,867	2,020	2,180	2%	8%	8%
Ka'anapali	4,817	5,938	6,537	7,180	23%	10%	10%
Kahului	20,620	26,078	26,202	30,410	27%	8%	8%
Kapalua	6,392	7,880	8,674	9,501	23%	10%	10%
Kihei	7,946	11,830	12,923	14,060	49%	9%	10%
Lahaina	3,356	4,149	4,568	5,003	23%	10%	10%
Makawao-Pukaiani-Kula	18,923	21,571	23,369	25,237	14%	8%	8%
Pa'ia-Ha'iku	7,788	11,866	12,915	14,006	52%	9%	8%
Wailea	7,417	11,040	12,061	13,121	49%	9%	9%
Wailuku	12,196	15,425	16,661	17,987	27%	8%	8%
Totals	91,350	117,644	125,930	138,685	29%	9%	8%

Sources: 2000 Census and *Public Transportation Plan for the Island of Maui*, November 2003

As shown in the table, future growth in communities, such as Kihei and Pa'ia that experienced explosive growth in the 90's is expected to slow dramatically. The largest growth rates are expected in Ka'anapali, Lahaina, and Kapalua. Hana is expected to grow in relative magnitude, although its population will still be under 2,500 people.

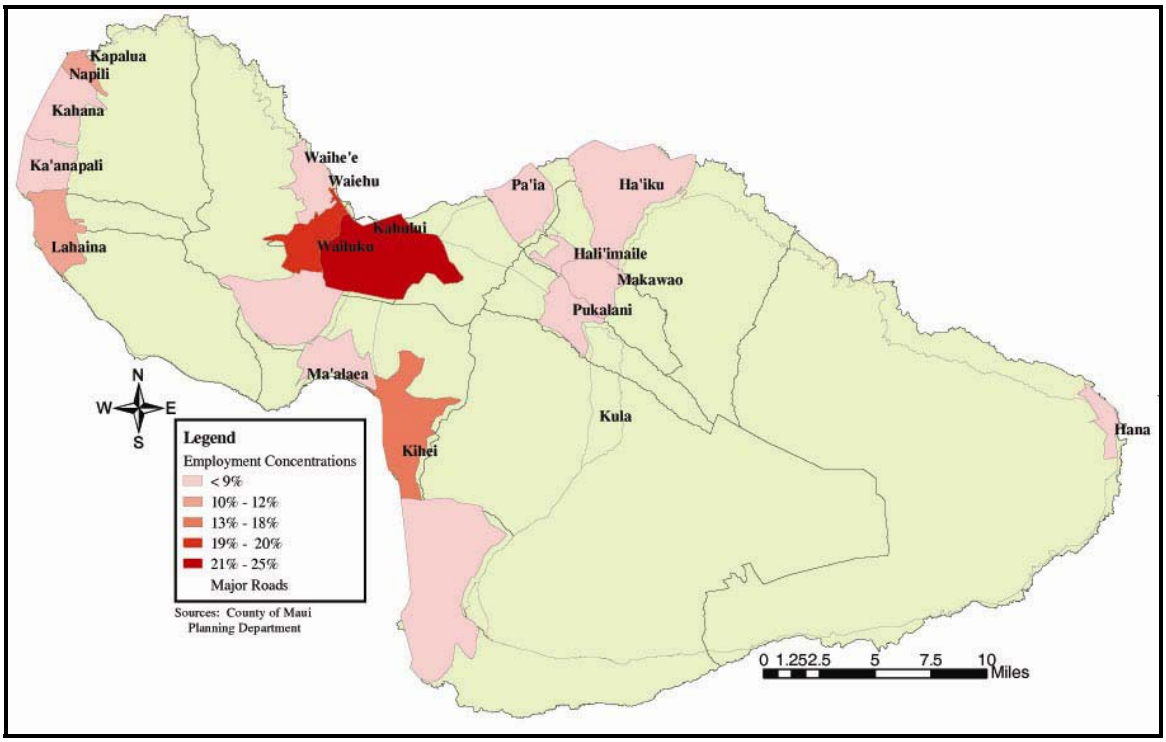
2. Demographic Profile

Household characteristics. Eleven percent of the County's population is age 65 or older and 20 percent are age 55 or older, while eight percent of the population is under five years of age. Looking at other household characteristics, 83 percent have a high school degree or higher, 21 percent of the population is disabled, 24 percent speak another language at home, and 11 percent of the individuals live on incomes below the poverty line. [4] Maui County and the State of Hawaii have a larger percentage of persons speaking another language at home than other U.S. households (24% and 27% vs. 18%) and the number of individuals in Maui below the poverty line is slightly below the U.S. average of 12 percent. In general, Maui County shares a similar demographic profile with the State of Hawaii and the U.S. as a whole.

Employment. The local economy on the Island of Maui is heavily dependent on government, tourism, and technology development at the Maui Research and Development Park in Kihei. As illustrated in Figure 2-4, employment on Maui is primarily concentrated in two regions: Kahului (25%) and Wailuku (19%). The Kihei (13%), Lahaina (12%), and Kapalua (10%) areas represent growing employment concentrations, typically associated with tourism. All other areas on the island represent less than 20 percent of current employment. As of Census 2000, Maui had an extremely low unemployment rate of 3 percent.

[4] Census 2000.

Figure 2-4 Island Maui Employment Concentrations, 2000

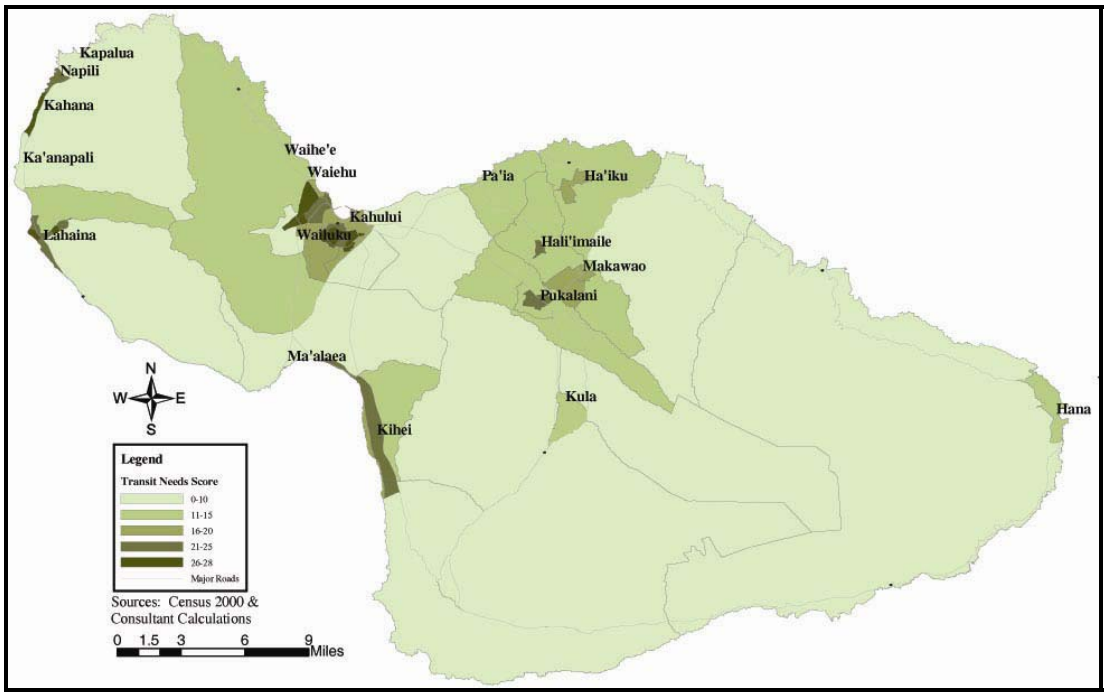


3. Transit Needs

Understanding where low-income and transit-dependent populations live and work is vital to developing transportation solutions to meet their unique needs. To estimate the relative transit needs of communities in Maui County, ordinal ranking was used to create a "transit needs index" based on a combination of demographic variables.[5] The transit needs score for each block group is displayed in Figure 2-5, "Relative Transit Needs on the Island of Maui." Areas of darker color represent census block groups expected to have the highest transit demand, based on a combination of population density, workforce density, median household income, disability status, and age. Note that this analysis does not include race or ethnicity as a factor influencing transit need. For the purposes of designing transit service, income is seen as a more effective predictor of potential transit ridership.

[5] The following explains the process used to develop the transit needs scores. The first step in ranking neighborhoods was to assign a score of one to five for each demographic variable. Scores were assigned based on natural breaks in the data, so that a score of one represents the lowest values and a score of five represents the highest values. This allows variables with different scales to be compared to each other. The scores for each variable were then added to arrive at a total transit needs score for each neighborhood (population density score plus employment density score, etc.). It should be reiterated that these scores are relative. For example, a score of two for population density does not represent the same value as a score of a two for employment density.

Figure 2-5 Relative Transit Needs on the Island of Maui



As illustrated in the figure above, the highest demand for transit is expected in Kahului and Wailuku, Kahana and Napili, Lahaina, Kihei, and Pukalani.

Using the same ranking system, transit need was evaluated for Moloka'i and Lana'i. As seen in Figure 2-6 and Figure 2-7, transit needs are much lower on these islands than on Maui. One block group on Moloka'i has a transit needs score in the middle category. On Lana'i the smallest block group on the island registers a transit need in the second highest category.

Figure 2-6 Relative Transit Needs on the Island of Moloka'i

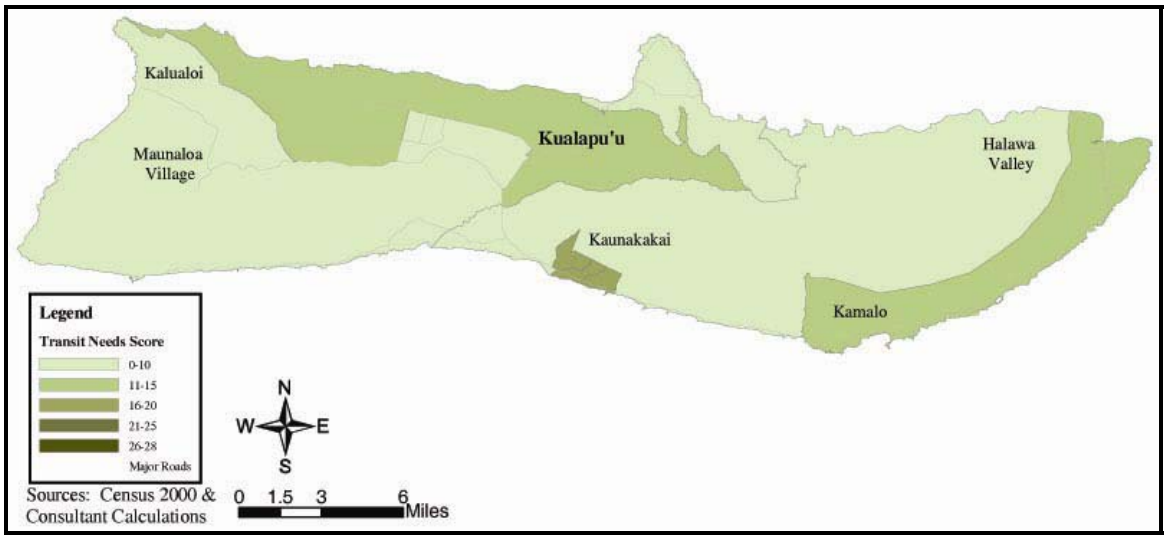
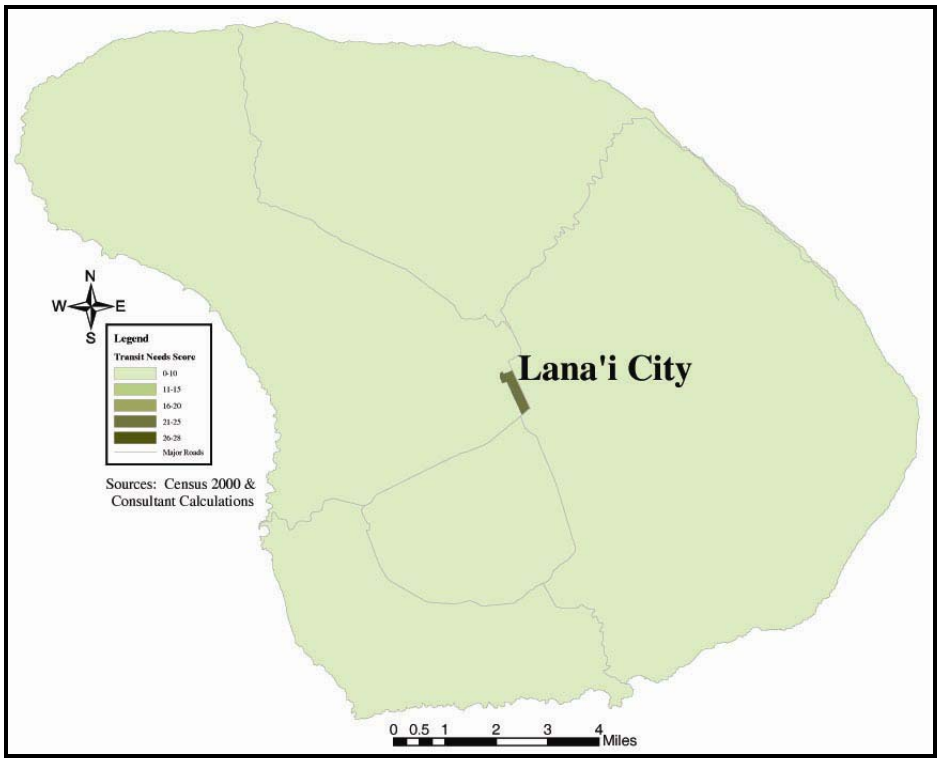


Figure 2-7 Relative Transit Needs on the Island of Lana'i



Based on these findings of limited transit demand for Moloka'i and Lana'i, subsequent analyses focus on the Island of Maui, where demand is expected to be the highest and thus the most logical starting point for a sustained public transportation program.

4. Recent and Planned Development

Recent and planned development on the Island of Maui has included considerable discussion regarding availability and affordability of housing. Given the rising cost of living and the aging of the population, the need for affordable housing units for the County's elderly, low income, and disabled populations has been growing rapidly. These developments are of particular interest to transit, because it is often the transportation disadvantaged who rely most heavily on transit service. The Department of Housing and Human Concerns for the County of Maui has identified a number of affordable housing projects that should be completed by 2006. Of the 1,864 units planned, 1,340 are affordable units. Most of these projects are in South, Central, and West Maui, although there are several projects Upcountry. These projects are detailed in Table 2-2 on the following page. It should also be noted that the creation of the SRTP should inform future affordable housing discussions, since the proximity to transit service should be an important consideration when siting affordable housing projects.

Table 2-2 Affordable Housing Developments, Island of Maui

Site	Number of Units	Affordable Units	Type	Area
Within Kahana Ridge Subdivision	117	117	Multi-family	Kahana
Below Waipuilani I Subdivision	92	46	Single-family	Kihei
Swap Meet Site on Pu'unene Avenue	40	39	Elderly multi-family	Kahului
Between Lahaina Civic Center and Wahikuli Subdivision	104	104	Single-family	Lahaina
NE Honokowai Beach Park	90	52	Multi-family	Honokowai
SW corner of Pi'ilani Highway and Old Welakahao Road	54	54	Elderly rentals	Kihei
Between Kapalua Airport and Honoapi'ilani	895	456	Mixed use	Kahana
Above Lahaina Regional Park	120	120	Transitional and long-term units	Lahaina
North of Ooka Super Market	62	62	Mixed use/multi-family	Wailuku
Above Lahaina Regional Park	26	26	Transitional and long-term units	Lahaina
Next to Maui Hui Malama	15	15	Accessible rentals	Kihei
Wailuku side of Waihee Village	115	115	Single-family	Wailuku
Adjacent and below Lanai School	35	35	Single-family	Lana'i City
Next to Kula Resident Lots	99	99	Single-family	Kula

Source: Department of Housing and Human Concerns, County of Maui; August 16, 2004

5. Major Trip Generators

The location and distribution of major trip generators also influences community travel patterns. Whereas demographic densities provide a picture of where transit trips are likely to originate, an understanding of the Island of Maui's major trip generators reveals where residents need to go. The following discussion identifies the location of major visitor areas, retail centers, clinics and hospitals, government centers, and shopping on the island.

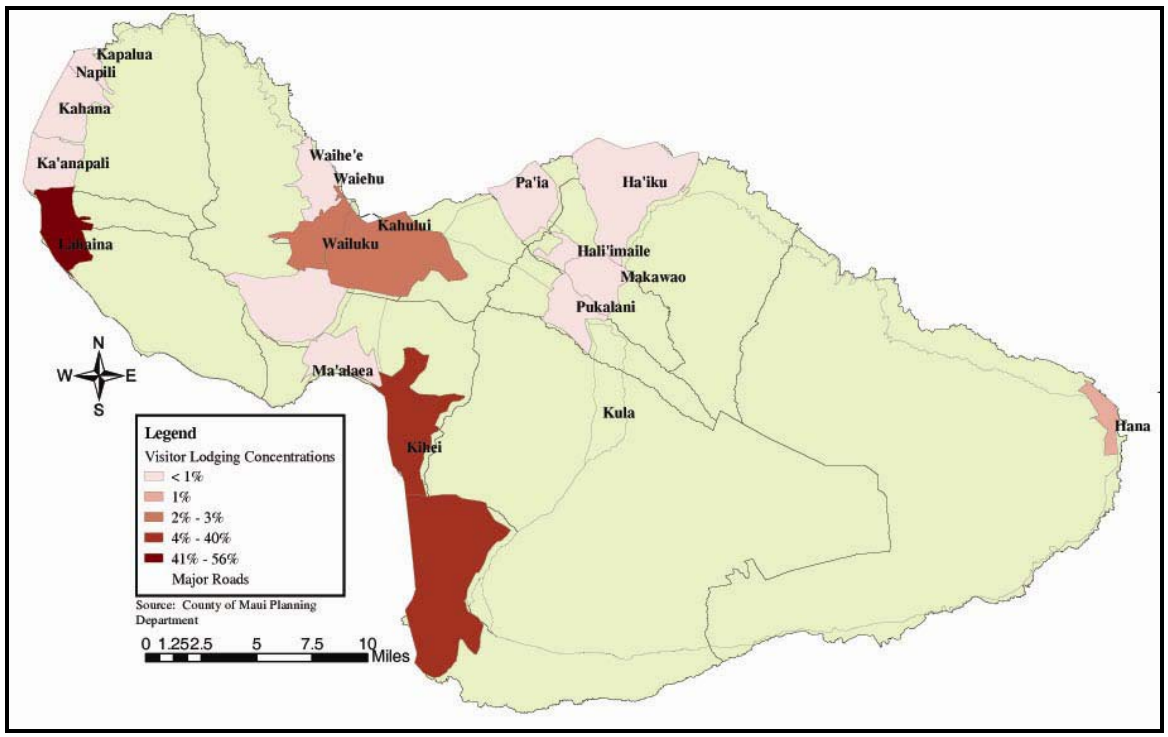
The Island of Maui includes several potential trip generators or activity centers, which are comprised of visitor lodging, medical and social facilities, shopping areas, and recreation areas. While the tourist industry has significantly influenced land use development on Maui, public transit has not yet captured a significant share of this important transportation market. Commercial and institutional destinations, which attract the largest share of transit trips, have generally concentrated in the Wailuku-Kahului area and along South Kihei Road. Residential development is concentrated in Central Maui but is intensifying in the communities of Kihei,

Lahaina, and Wailuku. The following is a more detailed description of major categories of trip generators on the Island of Maui.

a. Hotels/Visitor Lodging

Visitor lodging on Maui is concentrated along the southern and western coastlines of the island, where almost 98 percent of the island's 1,732 acres of visitor lodging is located. The existing concentration of visitor lodging is illustrated in Figure 2-8. Based on figures for 2000, there were 17,473 visitor units on Maui. The largest concentration of visitor units occurs in Lahaina (56%), with the second largest concentration in Kihei-Makena (40%). The remaining visitor lodging facilities are concentrated in Wailuku/Kahului (3%) and Hana (1%), with some additional units scattered in the Pa'ia/Ha'iku and Makawao/Pukulani/Kula areas. [6]

Figure 2-8 Island of Maui Visitor Lodging Concentrations, 2000



b. Medical and Social Service Facilities

Hospitals, clinics, and social service centers are important destinations for the community and it is critical that these facilities are well served by transit. There are several major healthcare facilities on Maui, the largest being Maui Memorial Medical Center, the county's primary medical center. Maui Memorial is an acute care community hospital offering 24-hour emergency services and services in all medical specialties, including obstetrics, critical care, and psychiatry. Dialysis and Cancer Treatment Centers, both privately operated, are also located at this facility. Another hospital on the island, Kula Hospital, is primarily a long-term nursing facility. The hospital does not offer emergency services but it does have a small clinic

[6] SMS. "Maui County Community Plan Update Program: Socio-Economic Forecast." Planning Department of Maui. June 14, 2002.

open from 8 a.m. to 4:30 p.m. Kaiser Permanente, serves a large number of the island's workers in Wailuku at its main facility on Mahalani and at the new Maui Lani Medical Clinic. The newly opened medical facility will have over 100 employees and house a pharmacy, specialty clinics, and a number of practitioners' offices. Kaiser also has clinics in Lahaina and Kihei.

Other clinics and rehabilitation centers in Maui include the State Health Center Laboratory, which provides adult mental health services, STD/AIDS testing and education, along with tuberculosis testing; Maui Medical Group, another health plan provider that serves many of the island workers and is located in the heart of Wailuku; and the Community Clinic of Maui, a non-profit agency that provides service to those people without insurance.

Many social service agencies are centered in the Walter J. Cameron Center near Maui Memorial or in other parts of Wailuku. These include Ka Lima O Maui (vocational rehabilitation), Maui Association for Retarded Citizens, and the Maui Center for Independent Living. In addition, the government offices dealing with older adults and persons with disabilities are located in Wailuku. Other social service offices include Hale Mahaolu (Kahului), Hale Makua (Kahului), and the Maui Adult Day Care Center (Puunene and Lahaina).

c. Senior Citizen Housing

There are numerous senior citizen housing facilities in Maui. Hale Mahaolu, a private non-profit organization, operates eight housing sites totaling 537 units throughout the Island of Maui and five County-owned low income housing sites totaling 326 units. In addition to Hale Mahaolu, there are two for profit senior citizen housing developments in Maui. The Kalama Heights Retirement Residence in Kihei has 120 units while the Roselani Place in Kahului has 113 units, 73 assisted-living units, and 40 Alzheimer's units.

d. Senior Citizen Centers

The County of Maui has an extensive assortment of programs for senior citizens. Senior citizens meet at various locations, including the two Kaunoa senior centers (in Sprecklesville and Lahaina), and the County-owned community centers operated by the County Parks & Recreation Department. These community centers include Hana, Ke'anae (East Maui), Ha'iku, Pa'ia, Makawao, Pukalani, Kula, Hali'imaile (Upcountry Maui), Kahului, Wailuku, Waikapu (Central Maui), Kihei (South Maui), and Lahaina (West Maui).

e. Youth Centers

Youth centers are available in almost every community in Maui. They serve as a place for youth to gather and participate in organized programs. There is at least one youth center located on all three islands in the County.

The Boys and Girls Club has four centers on the Island of Maui, serving approximately 2,500 youth per year. They have locations in Makawao, Ha'iku, Lahaina, and Kahului and serve youth ages 9 - 17. The clubs are open from 8 a.m. to 8 p.m., Monday through Thursday and from 8 a.m. to 10 p.m. on Friday. There are also a couple of independent youth centers on the island. The Kihei Youth Center is located in the Kihei Community Complex and serves children ages 8 – 17. The Pa'ia Youth and Culture Center is located next to Baby Beach Park and serves youth ages 14 – 18.

Moloka'i has one youth center located at the Mitchell Pauole Center in Kaunakakai which serves youth ages 6 – 18. Lana'i also has one youth center located in Lana'i City that serves youth ages 6 – 18.

f. Shopping

Malls and retail centers are significant transit generators. Many retail sites are also major employers, creating an overlap between markets accessing these generators and consequently increasing the anticipated level of transit activity. There are several regional shopping centers in Kahului and Lahaina as well as numerous community-oriented shopping centers scattered throughout the island. A number of retail centers cater to both tourists and residents. Two streets in particular, Front Street in Lahaina and South Kihei Road in Kihei, provide almost continuous retail and service frontage. There is also a cluster of "big box" retail stores along Dairy Road in Central Maui. This retail cluster, Maui Marketplace, includes Lowe's, Wal-Mart, and Kmart. Another cluster of retail stores in Central Maui is around Ka'ahumanu Avenue and Hana Highway and includes Safeway, Ah Fooks, Maui Mall, and the Queen Ka'ahumanu Center. The following list, although not intended to be all-inclusive, identifies some additional shopping and retail centers on the island.

- Lahaina Cannery Mall
- The Wharf Cinema Center
- Lahaina Square & Lahaina Shopping Center
- Whalers Village
- Shops at Wailea
- Kihei Town Center
- Pi'ilani Shopping Center
- Napili Market

g. Recreation

Recreation centers also represent potential transit destinations. The primary recreational facilities on Maui are the public beaches and harbors, the focal point for numerous ocean-related sports and activities and the various tourist attractions around the island. Some form of private transit, such as tour buses, already serves many of these locations. The following list although not intended to be all-inclusive, identifies some of the primary beaches and tourist attractions.

- Lahaina Harbor
- Kamaole Beaches I, II, III
- Ma'alaea Harbor
- Ka'anapali
- Haleakala National Park
- Iao Valley
- Kula Botanical Gardens
- Hana

The demographic and the trip generator analyses suggest areas that public transit should serve. To summarize, it is expected that the majority of transit origins and destinations in Maui will occur in Central Maui (Kahului and Wailuku), along South Kihei Road, and along the Honoapi'ilani Highway (Lahaina to Napili). Modified or expanded service should incorporate these findings to maximize ridership and customer satisfaction.

6. Road Network

The road network throughout Maui County is constrained by island topography and rural development patterns. Although most of the roads are in good condition, many are windy and limited to two lanes. In many cases, only one road serves a community with few alternate routes available. These physical constraints have contributed to significant traffic congestion along main thoroughfares, especially on the Island of Maui. The following is a brief description of some roadways on the Island of Maui that are experiencing the most significant congestion related delays.

Central Maui. Congestion along Mokulele Highway, Dairy Road, and Waiehu Beach Road

Upcountry Maui. Congestion through Pa'ia Town, along Haleakala Highway, and at the Haleakala Highway/Hana Highway intersection

South Maui. Congestion along Pi'ilani Highway and South Kihei Road

West Maui. The Honoapi'ilani Highway/Lahainaluna Road intersection experiences heavy congestion during the morning and afternoon peak periods due to traffic demand generated by the elementary, middle, and high schools located along Lahainaluna Road. Currently the Honoapi'ilani Highway south of Lahainaluna Road is a two-lane roadway that experiences congestion during peak travel periods. North of Lahainaluna Road, Honoapi'ilani Highway turns into a four-lane roadway.

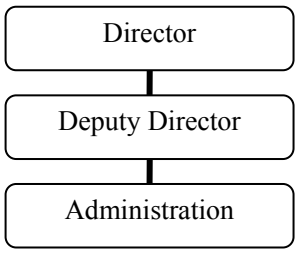
The physical constraints of a roadway network coupled with rapid population growth have contributed to the County's increasing traffic congestion. It is also important to keep in mind that congestion can negatively impact a public transit system's reliability, on-time performance, and ability to operate effectively. However, public transit can also help to alleviate the traffic congestion by providing an alternative to the private automobile.

C. Organizational Structure

MDOT, created on July 1, 2003, as a result of a charter amendment, is responsible for the planning and implementing of all modes of transportation in Maui County, including air, sea, and land transportation. MDOT was created to address transportation concerns of the citizens of Maui County and is responsible for developing an efficient transportation program. MDOT's mission is to facilitate the rapid, safe, and economical movement of people and goods in Maui County. As the islands' annual resident and tourist populations grow, conditions on already congested roadways will worsen. In an effort to produce immediate and lasting solutions, MDOT is exploring how public transit services throughout the county can help alleviate traffic congestion and improve overall mobility. The economic vitality of the county is influenced by its ability to effectively compete for the tourist market. If the tourist market perceives congestion negatively and it impacts the value of their experience, they may choose to vacation in other locations.

Currently, MDOT has three employees, a director, a deputy director, and an administrator. The organization chart for the department is illustrated in Figure 2-9.

Figure 2-9 Maui Department of Transportation Organizational Chart



C. County of Maui Transit Service Descriptions

As of July 1, 2004, the Maui Public Transit system consists of three transit routes operated by Roberts Tours, a private tour operator, and two transit routes operated by MEO. All of these routes are subsidized completely by the County of Maui. These routes provide service between various Central, South, and West Maui communities. All of the routes are operated Monday through Saturday. Table 2-3 provides a brief overview of existing transit services both public and private in the County of Maui. The following sections provide additional detail on the available transit services.

Table 2-3 Inventory of Existing Transit Services

Service	Hours of Operation	Mode of Service	Eligible Riders	Fares	Trip Purpose
Roberts Tours					
Route A	6:55 a.m. – 7:55 p.m., Monday - Saturday	Fixed Route	General Public	$1.00 - $2.00 one way/ $10.00 all-day pass	General
Route B	7:33 a.m. - 7:33 p.m., Monday - Saturday	Fixed Route	General Public	$1.00 - $2.00 one way	General
Route C	7:20 a.m. to 5:20 p.m.	Fixed Route	General Public	$2.00 one way	General
Akina Aloha Tours					
Holo Ka'a Public Transit	8:45 a.m. to 9:45 p.m.	Fixed Route	General Public	$1.00 one way	General
Wailea Shuttle	Varies	Dial-a-Ride	Guests at Wailea resorts	Free	Shopping
MEO					
Route 1	7:00 a.m. to 6:26 p.m.	Fixed Route	General Public	Free	General
Route 2	7:00 a.m. to 5:48 p.m.	Fixed Route	General Public	Free	General
Rural Shuttle-Maui	Varies by location	Scheduled & Dial-a-Ride	General Public	Free	Medical, employment, educational, other

Service	Hours of Operation	Mode of Service	Eligible Riders	Fares	Trip Purpose
Rural Shuttle-Moloka'i	Varies by location	Scheduled & Dial-a-Ride	General Public	Free	Medical, employment, educational, other
Maui Adult Day Care Center	Varies by location	Scheduled & Dial-a-Ride	Seniors	Free	Recreational
Leisure Program	Varies by location	Scheduled & Dial-a-Ride	Seniors	Free	Recreational
Nutrition Program- Maui	Varies by location	Scheduled & Dial-a-Ride	Seniors	Free	Congregate meals
Nutrition Program- Lana'i	Varies by location	Scheduled & Dial-a-Ride	Seniors	Free	Congregate meals
Youth Services-Maui	Varies by location	Scheduled & Dial-a-Ride	Youth ages 9-18	Free	Recreational, Educational
Moloka'i Youth Services	Varies by location	Scheduled & Dial-a-Ride	Youth ages 9-19	Free	Recreational, Educational
Employment Services	Varies depending on individuals schedule	Scheduled & Dial-a-Ride	Persons with disabilities	Free	Employment
Ka Lima O Maui	8 a.m. to 2:10 p.m./ Monday through Friday	Dial-a-Ride	Ka Lima O Maui clients	Free	Educational
Ala Hou Island of Maui	Times vary by location/ Saturday & Sunday	Dial-a-Ride	Persons with disabilities	$1.00	General
Ala Hou Island of Moloka'i	9:00 a.m. to 2:00 p.m./ Saturday & Sunday	Dial-a-Ride	Persons with disabilities	$1.00	General
Dialysis Services	Varies by location	Dial-a-Ride	Dialysis Patients	Free	Non-emergency medical
Other Operators					
Sugar Cane Train	8:55 a.m. to 4:50 p.m.	Dial-a-Ride	General Public		Shopping and Tours
Ka'anapali Trolley	9 a.m. to 11 p.m.	Fixed Route and Dial-a-Ride	Resort Guests	Free	To and from accommodations
SpeediShuttle	24 hours a day	Dial-a-Ride	General Public	Based on destination	To and from airport
Expeditions (Lahaina to Lana'i) Ferry	6:45 a.m. - 5:45 p.m.	Fixed Route	General Public	$40.00/ one-way adults and $20.00/ one-way children (2-11)	Shopping, tourism, employment
Moloka'i to Maui Ferry	5:30 a.m. to 5:15 p.m.	Fixed Route	General Public	$25.00/ one-way adults and $20.00/ one-way children (2 & up)	Shopping, tourism, employment
Vanpool Hawai'i		Vanpool	General Public		Employment

7. Public Transit Service

Currently, Maui has three types of service available to the general public: fixed route transit, dial-a-ride transit service and vanpools. Each of these services is explained in greater detail below and illustrated in Figures 2-10 and 2-11.

a. Fixed Route Service

Maui has both publicly and privately financed, fixed route transit service. Fixed route service is characterized by transit vehicles following a specified route according to a set schedule. Routes A, B, C, 1, and 2 are all publicly financed, while Holo Ka'a Route 2 and the Wailea Shuttle are privately financed. Figures 10 and 11 illustrate the current public transit system in more detail.

Route A. Route A is a collector route, which operates from the Ma'alaea Harbor Village to the Shops at Wailea with various stops in Kihei. The cost per one-way trip is $2.00 from the Ma'alaea Harbor Village to Uwapo Road, and $1.00 from Uwapo Road to the Shops at Wailea. A system-wide, all-day pass is available for $10 and a monthly pass is available for $45 ($40 for students or seniors). Passengers who only use one route may purchase a monthly pass for that route at a cost of $25 for the general public or $20 for students and seniors. Route A operates on 60-minute headways from 6:55 a.m. to 7:55 p.m. At the Pi'ilani Shopping Center, this route connects to the Route C with service to Kahului. At the Ma'alaea Harbor Village, this route connects to Route B with service to both Kahului and Lahaina. No transfers are given. The operation of this route is currently contracted out to Roberts Tours.

Route B. Route B is a connector route, which operates from Wal-Mart in Kahului to the Lahaina Wharf Cinema Center with a stop at the Ma'alaea Harbor Village. The cost per one-way trip is $2.00 from the Wharf Cinema Center to the Ma'alaea Harbor Village, and $1.00 from the Ma'alaea Harbor Village to Wal-Mart. Route B operates on two-hour headways from 7:33 a.m. to 7:33 p.m. At the Ma'alaea Harbor Village, this route connects to Route A with service to Kihei and Wailea. No transfers are given. The operation of this route is currently contracted out to Roberts Tours.

Route C. Route C is a connector route, which operates from the Queen Ka'ahumanu Center to the Shops at Wailea with stops at Wal-Mart in Kahului and the Pi'ilani Shopping Center in Kihei. Route C operates on two-hour headways from 7:20 a.m. to 5:20 p.m. The cost per one-way trip is $2.00. At the Pi'ilani Shopping Center, this route connects to Roberts Route A with service to Kihei and Wailea. No transfers are given. The operation of this route is currently contracted out to Roberts Tours.

Routes 1 & 2. Two routes operate in Central Maui, serving the communities of Wailuku and Kahului. The routes run in opposite directions and make 22 stops. Each route originates and ends at Wal-Mart in Kahului. Routes 1 and 2 operate run on two-hour headways from 7:00 a.m. to 6:26 p.m. Monday through Saturday. Route 1 has two earlier runs, one which starts at 7 a.m. at Harbor Lights and runs to Kaiser Clinic and one that begins at 7:15 a.m. departing from Hale Mahaolu Elua and arriving at Wal-Mart at 7:20 a.m. Route 2 has one run with limited stops commencing at 7:00 a.m. and arriving at Wal-Mart at 7:30 a.m. Fares for both routes are complimentary but donations are accepted. The operation of these routes is currently contracted out to MEO.

Holo Ka'a Route 2. Akina Aloha Tours privately operates a transit route that is available to the general public. The route provides service from Ka'anapali to Lahaina seven days a week, running on one-hour headways from 8:45 a.m. to 9:45 p.m. One-way fare costs $1.00.

Figure 2-10 Current Route Alignments

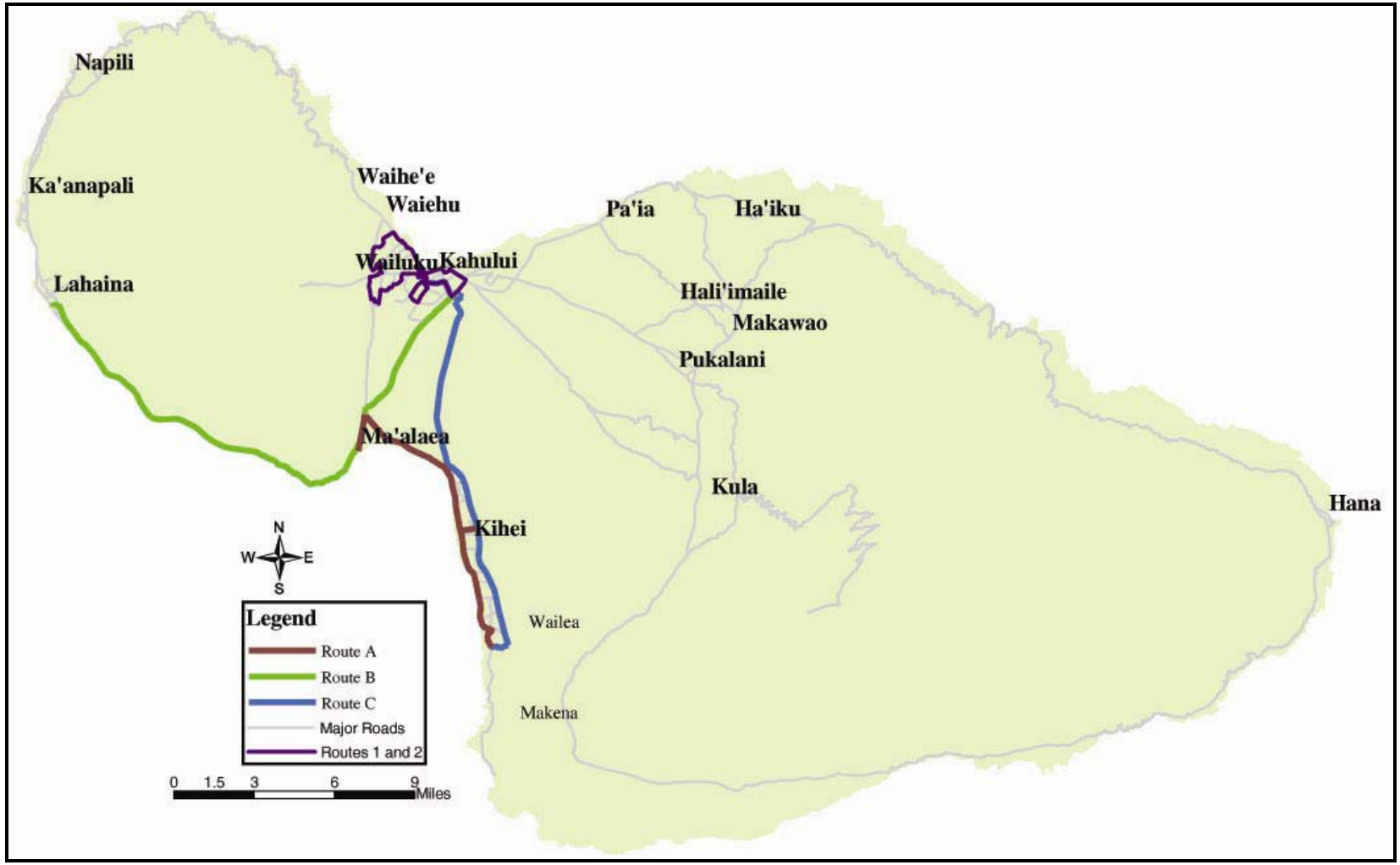
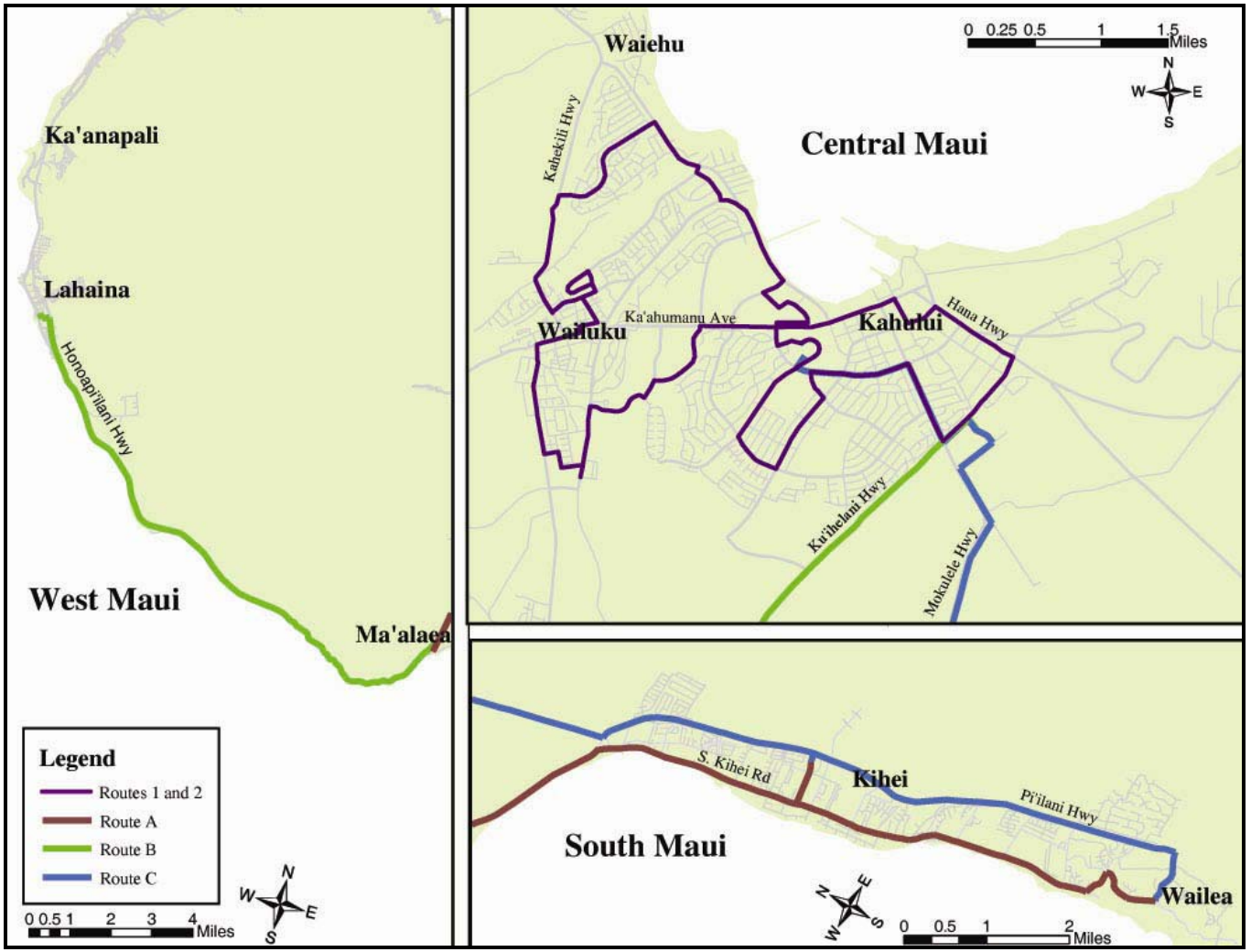


Figure 2-11 Detail of Current Route Alignments



b. Dial-a-Ride Services

There are a variety of names used to describe transit service that is scheduled in advance and does not have a prescribed route. Here we have chosen to use "dial-a-ride" to describe this type of service, but it is also called demand responsive service and paratransit, among other names. Currently, the rural shuttle is the only dial-a-ride service available to the general public on Maui, it is described below.

Rural Shuttle-Maui. MEO operates a rural shuttle that will pick individuals up at their residence, if it is accessible, and transport them to the Kahului and Wailuku area of their choice. Most passengers use this service for shopping trips. Reservations can be made one week to two days in advance. Table 2-4 below provides additional detail on hours of operation, pick up and drop off locations, and days of operation.

Table 2-4 MEO Maui Rural Shopping Shuttle Schedule

Pick-up Location	Day of Week	Pick up / Return Times
Ha'iku - Peahi	Mon/ Wed/Sat	8:00 a.m. - 12:30 p.m.
Hale Mahaolu Akahi	Thu	8:00 a.m. - 10:30 a.m.
Hale Mahaolu Akahi	Tue & Fri	11:45 a.m. - 1:15 p.m.
Hale Mahaolu Elua	Tue	8:00 a.m. - 10:30 a.m.
Hale Mahaolu Elua	Mon & Thu	11:45 a.m. - 1:15 p.m.
Hale Mahaolu Elima	Wed	8:00 a.m. - 10:00 a.m.
	Mon & Fri	11:00 a.m. - 1:00 p.m.
Hale Mahaolu Eono	Wed &	8:45 a.m. - 10:30 a.m.
	Thu	9:15 a.m. - 11:30 a.m.
Hali'imaile	Tue / Fri / Sat	8:00 a.m. - 12:30 p.m.
Hana	Wed & Fri	6:30 a.m. - 12:30 p.m.
Kahului	Mon / Thu / Sat	8:00 a.m. 10:30 a.m. & 11:30 a.m.
Keanae	Wed	7:00 a.m. - 12:30 p.m.
Kihei	Mon / Thu / Sat / 3rd Wed*	7:30 a.m. - 12:30 p.m.
Kula	Mon / Wed / Sat	8:00 a.m. - 12:30 p.m.
Lahaina- Honolua	Tue / Fri / Sat	7:30 a.m. - 12:30 p.m.
Makawao	Wed / Fri / Sat	8:00 a.m. - 12:30 p.m.
Pa'ia	Tue	8:00 a.m. - 12:00 p.m.
	Thu	8:00 a.m. - 10:30 a.m.
	Sat	8:00 a.m. – 12:30 p.m.
Pukalani	Wed / Fri / Sat	8:00 a.m. - 12:30 p.m.
Waihee/ Ekolu	Mon / Wed / Fri	8:00 a.m. 10:30 a.m. & 11:30 a.m.
Wailuku- Waikapu	Mon / Wed / Fri	8:00 a.m. 10:30 a.m. & 11:30 a.m.
Wailuku Community Center	Mon / Wed / Thu	11:30 a.m. - 1:00 p.m.

Rural Shuttle- Moloka'i. MEO operates a rural shuttle on the island of Moloka'i. The rural shuttle has three service areas, Moloka'i East, Moloka'i Central, and Moloka'i West. Each shuttle operates eight times per month. On days of operation the shuttles operate on the following schedule:

- Moloka'i East - 8:00 a.m. to 11 p.m.
- Moloka'i Central - 8:30 to 10:30 a.m.
- Moloka'i West - 8:00 a.m. to 12:00 p.m.

The shuttle will pick individuals up at their residence, if it is accessible, and transport them to retail locations in their area. Most passengers use this service for shopping trips. Reservations can be made one week to two days in advance.

c. Other Services

Vanpool Hawai'i. A transportation demand management program of the Hawaii Department of Transportation (HDOT), this service is provided by VPSI Inc. under a statewide contract. Vanpool Hawai'i is part of the State's Ridesharing Commuter Program, which aims to serve the needs of residents, military personal, and government organizations.

8. Specialized Transportation

While Routes A, B, C, 1, and 2 are the only fixed-routes provided, there are a number of other transportation services offered in Maui County. In addition to the fixed routes discussed above, other services provided are ferries to the islands of Lana'i and Moloka'i, visitor shuttles, rural shopping shuttles, vanpools, school buses, and special social service transportation. The primary provider of social service transportation in Maui County is MEO. MEO is a 36-year old, nonprofit social service agency that provides an array of services to more than 19,000 individuals including the elderly, low-income individuals, families and children, and general public. MEO manages 35 programs including Head Start, employment and job training, surplus food distribution, legal services, energy conservation, and transportation services. In addition to the routes in Central Maui and the rural shuttles, MEO's transportation services also include the following:

- Senior services
- Youth services
- Services for persons with disabilities
- Services for persons with low incomes
- Other specialized services

a. Senior Services

Maui Adult Day Care Center. MEO provides transportation service to Maui Adult Day Care Centers located in Central Maui and Lahaina. Service is provided Monday through Friday (except holidays), once a day to Maui Adult Day Care in Kihei and three times per week to Lahaina Seniors Center. Routes, to and from the centers, include the following communities:

- Upcountry Route – Pukalani, Makawao, Ha'iku, and Pa'ia

- Kahului Route – Kahului
- Wailuku Route – Wailuku, Waiehu, and Waikapu
- Lahaina Route – Honolua to Lahaina

Leisure Program. MEO provides transportation for eligible Leisure Program participants from designated pick-up stations to senior activities such as, senior club excursions, the Annual Aloha Party, and to activities taking place at the Kaunoa Senior Center. Eligible participants include seniors 55 years and older. Although MEO has designated pick up and drop off locations, some routes accommodate house-to-house pick up and return.

Nutrition Program - Maui. MEO provides transportation for eligible Nutrition Program participants from designated pick-up stations to dining sites. Eligible participants include seniors 55 years and older. Table 2-5 lists the congregate sites, service days, and the designated arrival and pick-up times for the Island of Maui. Given at least two weeks notice, MEO can make deviations from this schedule to accommodate the needs of participants. Once participants have enrolled in the Nutrition Program they need only contact MEO to cancel or suspend pick ups.

Table 2-5 Maui Nutrition Program Schedule, FY 2005

Congregate Sites	Service Days	Arrival	Pick Up
Hale Mahaolu Akahi	Monday- Friday	9:00 a.m.	Noon
Ha'iku (including Huelo)	Tue. & Thurs.	9:00 a.m.	11:30 a.m.
Hana	Tue. & Thurs.	9:00 a.m.	Noon
Lahaina- Honolua	Mon., Wed., and Fri.	8:45 a.m.	Noon
Lana'i	Monday- Friday	9:20 a.m.	Noon
Kahului Union Church	Tue., Thur., Fri.	9:00 a.m.	11:30 a.m.
Kaunakakai	Monday- Friday	9:00 a.m.	Noon
Kihei	Tue & Fri	9:00 a.m.	11:30 a.m.
Kula	Tue & Fri	9:00 a.m.	11:45 a.m.
Lana'i	Monday- Friday	9:30 a.m.	Noon
Pa'ia	Wed. & Fri.	9:00 a.m.	11:30 a.m.
Upcountry	Mon. & Thurs.	8:30 a.m.	11:30 a.m.
Wailuku Community Ctr.	Mon., Wed., and Thurs.	9:00 a.m.	11:45 a.m.

Source: MEO

Nutrition Program- Lana'i. MEO provides transportation for eligible Nutrition Program participants from designated pick-up stations to dining sites. Eligible participants include seniors 55 years and older. Service days on Lana'i for the nutrition program are Monday through Friday with pick-ups occurring at 9:30 a.m. and returns at 12:00 noon. Given at least two weeks notice, MEO can make deviations from this schedule to accommodate the needs of participants. Once participants have enrolled in the Nutrition Program they need only contact MEO to cancel or suspend pick-ups.

b. Youth Services

Youth Transportation Program – Maui. MEO provides Island of Maui youth, ages 9 to 18, with transportation for youth and activity clubs. MEO utilizes two buses per club to provide scheduled and dial-a-ride services for approximately 28 clubs. The buses can be utilized any day of the year except Sundays and holidays. This service is provided to youth with MEO issued transportation ID cards. The service area includes Central Maui (Kahului/Wailuku), South Maui (Kihei), West Maui (Lahaina), and the Upcountry (Makawao/Pukalani/Kula). MEO holds a monthly meeting with the Youth Advisory Group to discuss service needs and changes are made to accommodate school schedules once classes commence. Youth service transportation hours of operations vary by location. Schedules are published in the local media four times each year and distributed to public and private schools, youth centers, and other resource agencies for youth.

Youth Transportation Program – Moloka'i. MEO provides island of Moloka'i's youth, ages 9 to 18, with transportation to facilities identified as important to the island's youth. This service is provided to youth with MEO issued transportation ID cards. The service area includes, Maunaloa, the East End, Hoolehua, and Kaunakakai. MEO holds a monthly meeting with the Youth Advisory Group to discuss service needs and changes are made to accommodate school schedules once classes commence. Youth service transportation hours of operations vary by location. Schedules are published in the local media four times each year and distributed to public and private schools, youth centers, and other resource agencies for youth.

c. Services for Persons with Disabilities

Employment Transportation. MEO provides persons with disabilities in need of transportation to and from employment with curb-to-curb, ADA accessible transportation. This population includes, but is not limited to: chronically mentally ill, physically disabled, and the developmentally disabled in the County of Maui. This service is offered five days of week (except holidays) during normal business hours. Time of pick up and return is scheduled around the individual's work schedule.

Ka Lima O Maui. MEO provides service for Ka Lima O Maui's target population of adults with disabilities. Ka Lima O Maui is a rehabilitation center located in the J. Walter Cameron Center in Wailuku that provides vocational programs for economically disadvantaged and people with disabilities residing on the island. The population includes, but is not limited to, the following groups:

- Chronically mentally ill
- Physically disabled
- Developmentally disabled
- Economically disadvantaged

MEO provides Ka Lima O Maui's clients with door-to-door service Monday through Friday. Clients are brought to the center by 8:00 a.m. and picked up no later than 2:10 p.m.

Ala Hou Island of Maui Program. MEO provides public transportation service to individuals with disabilities who need accessible weekend transportation in seven Maui communities – Kahului, Wailuku, Kihei, Lahaina, Pukalani, Makawao, and Kula. Individuals must require accessible transportation and have a physician certified disability. Service is offered based on priority categories identified by MEO and they are as follows:

1. Scheduled medical visits
2. Employment
3. Education
4. Worship in one's religion
5. Other (recreation, social events, etc.)

MEO operates four vehicles in Central Maui and one vehicle in Lahaina, Kihei, and the Upcountry. Hours of operation for Central Maui, Lahaina, and Kihei are Saturday 10:00 a.m. to 6:00 p.m.; Sunday 8:00 a.m. to 4:00 p.m.; and 9:00 a.m. to 3:00 p.m. on Holidays. Hours of operation for Kula, Makawao, and Pukalani are Saturday 10:00 a.m. to 5:00 p.m. and Sunday 8:00 a.m. to 3:00 p.m. Passenger fares are $1.00 each way and reservations must be made no more than 7 days in advance or no less than 48 hours before requested pick up.

Ala Hou Island of Moloka'i Program. MEO provides transportation service to 40 eligible persons with disabilities on 26 weekend days (including holidays) on the island of Moloka'i. Individuals must require accessible transportation and have a physician certified disability. Service is offered based on priority categories identified by MEO and they are as follows:

1. Scheduled medical visits
2. Employment
3. Education
4. Worship in one's religion
5. Other (recreation, social events, etc.)

Hours of operation are from 9:00 a.m. to 2:00 p.m. Saturday and Sunday but are subject to change depending on client need. There is one vehicle and one driver providing curb-to-curb service only. Passenger fares are $1.00 each way and reservations must be made no more than 7 days in advance or no less than 48 hours before requested pick up.

d. Services for Medical Visits

Kidney Dialysis Transportation. MEO provides non-emergency medical transportation for kidney dialysis dependent clients. Transportation service for kidney dialysis patients to St. Francis Dialysis Center in Wailuku and Napili is offered, between the hours of 3:30 p.m. and 10:00 p.m., Monday through Saturday. Service is primarily offered in populated areas of Central, South, and Upcountry Maui. On Monday, Wednesday, and Friday, MEO provides transportation for kidney dialysis dependent clients in Hana, bringing them to St. Francis, between the hours of 7 a.m. and 5 p.m.

e. Other Shuttle Services

On the Island of Maui there are a number of privately operated shuttles for visitors and residents that offer services to and from shopping centers, major resorts, and the airport. A brief summary of these services follows.

Sugar Cane Train. The Lahaina-Ka'anapali Sugar Cane Train is a 1890s-style train that provides transportation between the two resort/shopping areas of Lahaina and Ka'anapali, including a scenic tour of six miles of plantation country. Trains operate daily with numerous runs between the hours of 8:55 a.m. and 4:50 p.m.

Ka'anapali Trolley. The Ka'anapali is a free trolley for resort visitors that operate from 9 a.m. to 11 p.m. daily. The trolley stops automatically at all hotels and on request, at condominiums in the area.

Wailea Shuttle. The Wailea Resort area offers an internal shuttle service for guests operated by Akina Aloha Tours. The free shuttle service operates every 30 minutes and serves the Wailea area hotels, Shops at Wailea, Golf Club, and Tennis Club. The shuttle meets Routes A and C at the Shops at Wailea.

Kapalua Shuttle. The Kapalua Resort area offers an internal shuttle service for guests.

Airport Shuttle. SpeediShuttle, a private company on Maui, offers door-to-door service between the Kahului Airport and major hotels. The shuttles run 24 hours a day and can be accessed by a phone call from the baggage area of the airport or reservations can be made in advance. Costs are based on destination location. In addition to SpeediShuttle there are a few private companies that also offer shuttle service to and from the airport.

f. School Bus Transportation

The State Department of Education oversees the provision of transit service for Maui public schools. School bus transportation is contracted out to private bus companies such as, Akina Bus Service Ltd. and Roberts Hawaii. The bus fare is $0.35 one-way and the County of Maui subsidizes $.10 of the fare.

9. Other Transportation Services

In addition to public transit routes and specialized transportation service there a number of private tour operators, taxi services, and inter-island ferry services available to the general public. A limited description of these services follows.

a. Private Tour Operators

There are a number of bus tour operators in Maui County, including Roberts Hawaii, Akina Aloha Tours, Polynesian Adventures, Travel Plaza, and Polynesian Hospitality. Another source of visitor transportation is the various activities booking centers, many of which offer bus transportation to and from their activities.

b. Taxis

There are a number of taxi services available on Maui. There is a taxi stand located at the airport but for service outside of the airport, most operators require residents and visitors to call ahead for service.

c. Rental Cars

Currently, great deals of tourists rely on rental cars for transportation while in Maui. There are a number of national and local rental car agencies that rent cars, vans, jeeps, and other specialized vehicles. Estimates put the total number of rental cars on Maui at 18,000.

d. Ferries

There are two ferry services operated between the islands of Maui and Lana'i and the islands of Maui and Moloka'i. Both are run by private operators and are focused on providing tourists and residents of Maui County easy access between the islands. Each service is described in detail below:

Expeditions (Lahaina to Lana'i). Expeditions has been providing ferry service for locals and visitors between Lana'i and the Island of Maui for approximately 10 years. The ferry to Lana'i takes approximately one hour and departs from Lahaina Harbor on Maui at 6:45 a.m., 9:15 a.m., 12:45 p.m., 3:15 p.m., and 5:45 p.m. daily. The ferry to Maui departs at 8 a.m., 10:30 a.m., 2 p.m., 4:30 p.m., and 6:45 p.m. daily. Fares for adults are $25.00 one way and fares for children 2-11 are $20.00 one way. Kama'aina rates are available for individuals with a State of Hawai'i drivers license.

Moloka'i – Maui Ferry. Operated by Sea Link, a private operator, the ferry began offering service in 2001 making daily round trips from Moloka'i and Maui. The ferry transports Moloka'i residents to shopping and jobs on Maui and primarily tourists from Maui to Moloka'i. One way fare for adults is $40.00, $20.00 for children, and free for anyone under the age of two. Moloka'i commuters pay $15.00 for a roundtrip ticket. The trip takes 90 minutes one way and is offered twice a day Monday through Friday and once each way on Sunday. Ferries depart from Moloka'i's Kaunakakai Harbor at 5:30 a.m. and 2:30 p.m. Monday through Saturday and on Sunday at 3 p.m. The ferry departs Maui's Lahaina Harbor Pier 3 at 6:30 a.m. and 5:15 p.m. Monday through Saturday and 5:15 p.m. on Sunday.

10. Equipment and Facilities

MDOT's offices are located on the first floor at 2145 Kaohu Street in Wailuku. MDOT does not own any of the public transit vehicles currently in operation. All vehicles in operation are owned by Roberts Hawaii or MEO. All routes meet at the Wal-Mart to facilitate transfers between Central Maui routes and regional routes. Most bus stops along South Kihei Road have bus stop signs, but they are infrequent elsewhere. In general, the capital infrastructure is very limited but a few stops (Wal-Mart, Kaiser, and Queen Ka'ahumanu Center) have amenities such as benches.

CHAPTER 3: PUBLIC OUTREACH

Public input is a vital component to any successful transit study. In order to solicit input from as many people as possible, a variety of outreach techniques were used. They include:

- Stakeholder interviews,
- Drop-in sessions with passengers and drivers,
- Public workshops, and
- Comment forms and letters.

The public involvement techniques employed during this project were crucial to spreading the word about transit service in Maui County, incorporating key concerns and ideas into the planning process, and generally building interest, support, and consensus among stakeholders and potential customers. All told, these outreach efforts provided input from over 300 people and garnered two editorials and several front page articles in the Maui News, the content of which is described below.

A. Stakeholder Interviews

Stakeholder meetings were informal meetings held between an Urbitran team member and key individuals in the community. These meetings typically lasted for one hour and were conducted in person, or in some cases, over the phone. These meetings are particularly valuable in deriving background on institutional issues; unmet needs, attitudes and perceptions, and overall opinions of existing transit services and needs in the community.

Stakeholders included elected officials, representatives of key social service agencies and programs, the Transportation Alternatives Maui (TRAM) committee, and the current transit system operators. A total of fifteen stakeholder interviews were conducted during the team's site visits on October 27 to November 5 and November 29 to December 10, 2004.

Some of those interviewed are quite familiar with the day-to-day operations of the County's transit system and were able to discuss its strengths and weaknesses. Others offered valuable perspectives on the social, political, and economic conditions and suggestions on how transit might be improved in the coming years. The major themes gleaned from the stakeholder interview process are discussed below.

1. Public Transit Coverage

The most common theme throughout the stakeholder interviews was the need for transit to serve a larger area, provide more frequent service, and offer extended hours. Several stakeholders expressed the need for transit to better serve low-income households and their employment transportation needs. The need was also expressed for MDOT to collaborate with the hotels and resorts in order to provide more transit service to employees and guests. Many expressed concern over the lack of service Upcountry and the need to extend service hours. Extending service hours would not only benefit service employees but would also provide alternative transportation for seniors who are wary of driving after dark.

2. Youth Transportation

During the stakeholder meetings, concern was expressed that Maui youth are significantly and negatively impacted by the lack of public transit services. In contrast to the range of specialized services for seniors, youth have fewer transportation services and programs available to them. According to the interviews, Maui youth would benefit from extended hours and a greater service area to transport them to and from school, sports practices, youth clubs, and other recreational opportunities during the evenings and on the weekends. In general, the benefits of public transportation include the flexibility of customers to schedule their own trips each day based on the hours of operation. In comparison, the specialized transportation services described above typically require pre-scheduling with many trips constrained by competing demands.

3. Public transit marketing

A lack of adequate marketing for the Maui public transit system was cited by several interviewees as a key barrier to improving transit service in the County. A unique image for the Maui transit system was identified as being a key to its success. A lack of identity and adequate infrastructure such as signs, benches, and shelters can have a significant impact on ridership and the public's ability to recognize the system.

Another issue identified is the need to provide educational programs for individuals interested in using public transit but confused by the complexities of the services offered and lack of transit riding experience. Suggestions made to address this issue were to: make the transit system simple and easy to navigate and provide opportunities for individuals to receive travel training (i.e., assistance reading schedules, trip planning, etc.).

4. Congestion

Congestion is a growing issue on the Island of Maui and it was a recurring theme during the stakeholder meetings. As a result of the congestion and in an attempt to alleviate the problem, there are a number of roadway projects under construction or in planning. Congestion around schools was identified as a growing issue and has been attributed to the limited use of school buses that are often perceived as being poorly scheduled.

5. Transportation Costs

Transportation costs on Maui are high and continue to grow. With gas prices averaging $3.00 a gallon, the cost of personal transportation can be a significant burden on Maui residents' monthly income and visitors' vacation budgets. A theme of the stakeholder meetings was the need to develop incentives for residents and visitors to use transit and publicize the disincentives to driving alone. Incentives to use the service might include the environmental benefits, ability to read or sleep rather than drive to work, and lower cost than driving. Disincentives to driving alone include the existing gas prices, vehicle operating costs (like maintenance and insurance) and congestion.

6. Moloka'i and Lana'i

In addition to stakeholder meetings on the Island of Maui, input regarding transit and transportation needs of County residents and visitors was solicited from stakeholders on the Islands of Moloka'i and Lana'i.

a. Moloka'i

Stakeholders expressed concern over the lack of adequate public transportation services available and the needs of the primarily rural, low-income population. According to input received, residents on the island would benefit from some form of regular, public transportation to connect rural areas of the island to major population centers. There is also interest in improved waiting areas, such as shelters and benches, in Kuanakakai.

Current users of the MEO operated dial-a-ride services report that they are quite happy with the service. Many passengers cannot drive due to physical limitations or the inability to afford an automobile. Some passengers requested additional service to reduce waiting times and increase flexibility. Others would like expanded coverage in terms of service area and service span, such as afternoon service east of Kaunakakai. Service for the youth programs is very important, particularly in Maunaloa and East End, but including Hoolehua, Kalae, and Kualapu'u.

b. Lana'i

In discussing transportation needs for the Island of Lana'i the general response was that there is limited need for transit service and that existing needs were being adequately met. This is due in part to the presence of the shuttle privately operated by Castle & Cooke, the owners of the Lodge at Koele and the Manele Bay Hotel, and the higher socioeconomic status of most visitors.

B. Transit Passenger and Driver Interviews

An integral component to understanding any transit system is talking with the people who interact with the service the most– its passengers and drivers of the transit vehicles. The consulting team had the opportunity to talk with a wide range of passengers and drivers during project visits. The following is a summary of what we learned through these discussions.

1. Passenger Interviews

Conversations with passengers help us understand who is currently using the system, how the service is performing, desired improvements, and satisfaction with the service. The passengers who were interviewed covered the broad demographic of Maui residents and visitors – from workers commuting, to children traveling to meet their friends, to first time Maui tourists out to see the sights, to part-year residents out shopping. Overall their responses and reactions to the service were very positive – with frequent requests for additional service and more marketing of the service. The following summarizes responses from those passengers we spoke to.

Fares. Most respondents felt that current fares are reasonable, but that they would be willing to pay more and would like to have transfers. One passenger expressed a willingness to pay $5 for the trip from Central Maui to South Maui.

Trip purpose. Trip purpose varied considerably, including trips for work, sightseeing, shopping, and entertainment/recreation.

Service span. Most passengers thought that service ought to run later in the evening, until 8 p.m or 9 p.m.

Coverage. A few passengers expressed concerns about the extent of the transit service. They included a couple of requests for service south of the Shops at Wailea, interest in service Upcountry (Ha'iku in particular), interest in service to/from the airport, and a concern about the cancellation of Route 1 (previously operated by Akina) in West Maui.

Frequency. Although passengers were generally satisfied with how often the buses run, there was general agreement that having buses run more frequently would make it easier for people to use the service (by limiting how long you would have to wait if you were to miss the bus).

Quality of service. Most passengers were happy with the performance of the service, reporting that vehicles are usually on time and that they like the trolley buses and drivers. One complaint was that buses pass by passengers unless they are standing right at the bus stop sign.

Bus stop amenities. Most passengers felt that additional amenities will be important to the success of the service – highlighting the need for additional bus stop signs, route information, benches, shelters and clear information on the vehicles about where they are going.

Information. A regular comment was that it is extremely difficult to get information on the transit service – schedules are not readily available and few people know enough about the service to provide assistance. Passengers thought information should be available at resorts, condominium complexes, timeshares, and shopping areas as well as being in the various visitors' guides and on the visitors' channel.

Interest in service. Part-year residents in particular were interested in public transit as an alternative to renting a car. Tourists riding the service also expressed support for the service and felt it was a great to be able to see the island without having to drive, for example whale watching south of Lahaina.

2. Driver Interviews

Our conversations with drivers were also very useful in understanding the local operating environment, identifying operational problems, and learning more about the ridership base and their concerns. The following summarize the findings.

Operating environment. Drivers generally do not have problems navigating traffic to pick up and drop off passengers; some passengers will flag the bus to stop at locations that are not official stops.

Operational issues. The biggest operational concern was on Route A and that it is very difficult to stay on time for runs out to Ma'alaea – there isn't enough time in the schedule to make that trip. In contrast, both Routes B and C have extra time in their schedules, which leads to long breaks at trip ends. Demand for early service is lower on the weekend and holidays – the schedules could be modified. Buses get overcrowded at the Maui Ocean Center when there are tours. It is hard to keep track of where all the passengers want to get off because there is no bell to signal the desired stop. The radios do not always work to allow drivers to communicate about transferring passengers. Some drivers opt to take S. Kihei Road instead of Pi'ilani Hwy because there is extra time available on Route C.

Passenger requests. Common requests are received for later service, more bus stop signs, service to Cove Park and Maui Vista, and kids to bring boogie boards, bikes, and surf boards on the buses.

Other. Some other observations include that most passengers are regular users, it is important for workers that the buses run on time, a lot of elderly passengers like to go to Wal-Mart, very few passengers go to the State Office Building, a group of students takes the bus from Pi'ilani Shopping Center to Maui Community College every day, and it is hard for some seniors to get to the bus stops.

C. Public Workshops

A series of five public workshops were conducted during the week of November 29, 2004. Each workshop was held from 6:00 p.m. to 8:00 p.m., while the location rotated each night. Workshops were held in the communities of Ha'iku, Kihei, Lahaina, Kahului, and Kula. Attendance at these events ranged from roughly 20 to 100 people, with the highest attendance in Kahului and the lowest in Ha'iku. The total estimated attendance was 280.

The basic format of each meeting was the same and started with a brief presentation on public transit and the short range transit plan project. Following the presentation, those in attendance split into groups of five to ten people to discuss and provide feedback on six features of transit service: coverage, hours of service, frequency of service, days of service, vehicles, and fares. One person recorded their group's answers and reported back to the entire group. The second task was to identify trip generators that should have transit service, suggest locations for transit hubs, and propose a new name for the transit system. Again, findings from the small groups were presented to the group at large. The final component of the meeting allowed individuals to ask questions or make comments. The following summarizes the input from the public meetings by topic and community meeting location.

1. Coverage

Ha'iku. Areas for transit service most frequently requested from community members in Ha'iku were in Pa'ia and to the Kahului Airport. The areas identified the less often were Makena, Lahaina, and Pukalani.

Kihei. Areas most frequently requested for transit service were Kahului and Wailuku. The second most frequently requested area for transit service was Lahaina. The areas identified less frequently for transit service were Wailea, Ma'alaea, and Upcountry.

Lahaina. Areas most frequently requested for transit service were Kahului, Wailuku, and Kihei/Wailea. The second most frequently requested areas for transit service were Kapalua, Ka'anapali, and Napili. The area identified the least was Makawao.

Kahului. Areas most frequently requested for transit service from community members in Kahului were in the areas of Kahului and Kihei/Wailea. The second most frequently requested areas to provide transit service were Lahaina, Hali'imaile, and Pa'ia. The areas identified the least for transit service was Kula and Pukalani.

Kula. Areas most frequently requested for transit service from community members in Kula were Pukalani and Makawao. The second most frequently requested area for transit service was Hali'imaile. The areas identified less frequently were Ha'iku, Lahaina, Kahului, and Wailuku.

2. Hours of Service

Ha'iku. The most requested hours of service from community members attending the public workshop in Ha'iku were 6 a.m. to 10 p.m. The second most requested hours of service were 7:00 a.m. to 5 p.m.

Kihei. The most requested hours of service from community members in Kihei were 6 a.m. to 10 p.m. The second most requested hours of service were 7:00 a.m. to 10 p.m. Other service hours requested were as follows: 5:30 a.m., 6:30 a.m., 9:00 a.m. and 8:00 p.m., 9:00 p.m., 11p.m. to noon, 7 a.m. to 10:30 p.m. or 10:00 p.m.

Lahaina. The most requested hours of service were 5:00 a.m. to 7:30 p.m. The second most requested range of service hours was from 7:30 a.m. to 6:00 p.m. Other service hours requested were as follows: 6:00 a.m. to noon, 7:00 a.m. to 10:30 p.m. or 10:00 p.m. Community members also expressed a desire for late bus service.

Kahului. The most requested hours of service from community members in Kahului were 6:00 a.m. to 10:00 p.m. The second most requested range of service hours was from 5:00 a.m. to 11:00 p.m. The least requested service hours were 9:00 a.m. to 7:00 p.m. and peak only hours of 6:00 am to 9:00 a.m. and 7:00 p.m. to 10:00 p.m.

Kula. The most requested hours of service from community members in Kula were 6:00 a.m. to 10:00 p.m. The second most requested hours of service were 6:30 a.m. to 9 p.m. or 10 p.m.

3. Days of Service

Ha'iku. The most requested days of service were for seven days.

Kihei. Most community members attending the public workshop in Kihei requested transit service 7 days a week; the next most common response was 6 days.

Lahaina. Most community members attending the public workshop in Lahaina requested seven days of transit service. The less common request was 6 days.

Kahului. The most requested days of service were for seven days. The second most requested days of service were weekdays, minus holidays and weekends. The least frequently requested service span was 6 days.

Kula. Most community members attending the public workshop in Kula requested seven days of transit service. Three to four days of service was also suggested.

4. Frequency/Headway

Ha'iku. The most requested frequency during the Ha'iku meeting was for headways of 60 minutes. Other requests were for three hour headways and headways of over 60 minutes.

Kihei. Most community members attending the public workshop in Kihei requested 30-minute headways.

Lahaina. The most requested headway was for buses operating every 30 minutes. Other suggestions were: buses running twice per day, on one-hour headways, and 30-minute peak service and 60-minute off-peak service.

Kahului. The most requested frequencies at the Kahului community meeting were for peak hour service operating on 30-minute headways and off-peak service operating on hour headways. Other requests were for 30-minute headways in Kahului and Wailuku and 60-minute headways in all other areas.

Kula. The most requested headway during the Kula community meeting was two hours. Other requests were buses running hourly and 30-minute peak headways.

5. Fare

Ha'iku. The most requested fare for transit service during the Ha'iku community workshop was $1.00.

Kihei. The most requested fare for transit service was $1.00. The second most requested fare was $2.00. Community members also suggested passes in the amount of $20.00 and $45.00.

Lahaina. Fares suggested at the Lahaina community workshop were as follows: $5.00, $1.00 - $3.00, $4.00 - $5.00, and $3.00 for tourists. A request was also made for a punch card transit pass.

Kahului. The most requested fare for transit service was $1.00. The second most requested fare was $1.50. Other requests were as follows: $2.00, $.25 for the elderly, and free transfers.

Kula. Most workshop participants suggested a $1.00 fare for transit service. Other suggestions were for $2.00 and free fares for individuals 75 years of age and older.

6. Bus Names

The most frequently suggested bus names were: The Bus, Maui Rapid Transit (MRT), and Wiki Wiki. Other names that were suggested by community members include;

- Giddy Up,
- Aloha Express,
- Magic,
- No Ka Oi Transit,
- Hele-on,
- Da Bus,
- All Bus Up,
- Wings of an Angel,
- Island Transit,
- Maui Connection, and
- Maile Express.

C. Comment Forms and Letters

In an effort to collect additional input from community participants, comment sheets were distributed at the five public workshops. Participants were asked what they would like to see in their public bus system (i.e. where they would like to go, what time, etc). They were given a blank form and encouraged to list any additional comments, recommendations, and concerns they had regarding public transit. Comments submitted were reflective of information collected during the public workshops. In addition to comment forms, MDOT also received a number of letters and faxes regarding transportation services in the county.

In total the County of Maui received fifty-six letters on transportation services. Eighteen letters were written in support of MEO and the specialized transportation services they provide. These letters were submitted by a variety of stakeholders such as, Maui Adult Day Care Centers, Maui Medical Center, Hawaii Representatives, and Hale Mahaolu. Thirty-eight letters were received from Maui County high school students. Twenty-four students requested the use of larger buses for youth transportation and ten expressed the need for transportation to Kahului Harbor from Upcountry for canoe paddling practice. Other students expressed appreciation for the youth service provided by MEO.

Many of the letters and faxes received during this planning process requested that MEO be included in the SRTP. As a provider of specialized transit services and the current operator of Routes 1 and 2, MEO is included in the analysis and discussion. However, because the focus of this study is public transit service – which includes transit services open to the general public and complementary ADA paratransit – MEO is not examined in more detail. Due to the integral role that MEO's services play in transportation in Maui County, MDOT should consider a comprehensive analysis of their services and explore ways in which the specialized services can be coordinated with other transportation services.

D. Media Coverage

The public involvement process of the SRTP project garnered two editorials and several front-page articles in the Maui News during the week of November 29, 2004 and December 1, 2004. These articles presented information on the overall SRTP process, the history of transit in the County, and key concerns and ideas of County residents and stakeholders. Copies of these articles are included in Appendix 1.

E. Public Outreach Summary

Based on community input solicited through the various outreach efforts, the following issues were identified as the most pressing in Maui County:

- Expanded transit service coverage,
- Increased transit frequency,
- Lack of adequate youth transportation, and
- Need for extensive marketing of the public transit service.

CHAPTER 4: GOALS, OBJECTIVES, AND PERFORMANCE

Initiating a new transit service provides the opportunity to revisit transportation and land use issues through the establishment of goals and objectives for transit in Maui. Goals and objectives are based on a review of planning and policy documents for the county and discussions with Maui Department of Transportation and multiple stakeholders. These goals and objectives are expected to evolve over time, but those presented below offer a starting point for Maui's transit service.

A. Goals, Objectives and Performance Measures

The following overarching goals represent MDOT's mission to provide high quality, fixed route and paratransit mobility at a reasonable cost.

1. Provide a transit system that effectively meets community needs and improves the quality of life.
2. Operate and manage the transit system efficiently.
3. Provide accessible transit services.

In support of these goals, a series of objectives and performance measures have been developed to help MDOT monitor its performance. These objectives, performance measures and their corresponding standards are detailed in the following tables. MDOT has the following vision for public transit within the county:

- Create a rider-friendly public transit system that is fully integrated into the community.
- Actively promote public transit use as an alternative to the single occupant vehicle to increase the percentage of trips taken on public transit.
- Develop a stable and adequate funding platform for public transit to fund both capital and operating costs.
- Facilitate transit-friendly development throughout the county.

Factors that should be considered in developing a successful public transit system include the following:

- **Land use interface** - Future public transit systems and service expansions should be planned to reflect, and positively influence, land development, potential commute patterns, and the demographic and economic future of the county. Coordinating development patterns and the design of public transit systems supports the successful performance of public transit while positively impacting traffic congestion, air quality, and community cohesiveness. As the county develops, land should be identified, purchased, and conserved to support future transit corridors.
- **Convenience** – Public transit services must be convenient and user friendly to attract passengers and to give them additional mobility choices.
- **Cost effectiveness** – Existing public transit services must be continually reevaluated through the Maui County planning process to assure: cost effectiveness and their

ability to meet changing public needs. Similarly, new services should be designed to effectively and efficiently match service demand with service supply.

- **Coordination** – Explore resource-sharing opportunities with other transportation providers, including MEO, in areas such as fleet, fuel, dispatch, maintenance facility, training, etc. with the goal of improving efficiency and effectiveness. Appropriate sharing of resources can improve mobility options, reduce duplication and decrease costs.
- **Maximize work trip service effectiveness** – Explore commute and express transit services and rideshare options to respond to the more predictable home to work trip patterns.
- **Multi-modal linkages** – Bicycling is an increasingly popular recreational activity and mode of transport on Maui. To promote the expanded use of bicycling and the reach of the transit system itself, all public transit vehicles should be equipped with bike racks. This policy should be maintained and bike access facilitated through actions such as providing bike lockers and storage at key stops. Racks should also be able to accommodate surfboards and boogie boards, making transit an attractive alternative for the county's youth.

B. Performance Measurement Program

A performance measurement and monitoring program should be established to quantitatively monitor and evaluate how well the service is performing. Performance criteria and appropriate standards were developed to track the transit service's performance relative the established goals and objectives. This information is presented in Tables 4-1 and 4-2. Many of the performance standards are based on expected performance in a fairly rural operating environment. Due to lack of historical data on transit performance, these standards should be revisited and modified as appropriate after a year or eighteen months of service.

It is recommended that MDOT complete an annual evaluation of the service to provide county policymakers and elected officials with an accurate understanding of service performance.

Table 4-1 Fixed Route Goals, Objectives, Performance Measures, and Standards

Goal	Objective	Performance Measure	Standard		
			Islander	*Central Maui*	*Villagers*
1. Provide a transit system that effectively meets community needs	a. Provide convenient transit service	% Dwelling units in residential areas with density of three units per acre within 1/4 mile of transit route	50%	90%	80%
		% Major activity centers within 1/8 mile of transit routes	60%	100%	80%
	b. Provide reliable transit service.	Vehicle miles between road calls*	10,000	10,000	10,000
		Missed Trips	0	0	0
		% Scheduled departures zero minutes to five minutes of scheduled time	95%	95%	95%
	c. Provide safe transit service.	Miles between preventable accidents	100,000	100,000	100,000
	d. Coordinate land use and transportation planning	DOT reviews development plans, transit supportive development standards are incorporated in the zoning code (i.e. for bus pullouts and roadway design)	100%	100%	100%
	e. Provide attractive services which respond to market demands for transportation	Annual ridership growth	At least equal to population growth	At least equal to population growth	At least equal to population growth
	f. Provide coordinated transit services	% Timed transfers with other routes during peak periods	75% of timed transfer are within ten minute window	75% of timed transfer are within ten minute window	50% of timed transfer are within ten minute window
	g. Provide accurate and timely marketing information	Marketing materials current and widely distributed	Yes	Yes	Yes

			Standard		
	h. Regularly evaluate community transit needs	Conduct an onboard survey at least once every three years	Yes	Yes	Yes

* Road calls are defined as maintenance calls which cause the bus to run 10 minutes or more behind schedule or require passengers to change buses mid-route.

Goal	Objective	Performance Measure	Standard		
			Islander	*Central Maui*	*Villagers*
2. Operate and manage the transit system effectively	a. Minimize operating costs per unit of service provided	Annual operating cost increase per revenue vehicle hour	≤ to the annual increase in the Hawaii CPI	≤ to the annual increase in the Hawaii CPI	≤ to the annual increase in the Hawaii CPI
	b. Maximize vehicle life through preventive maintenance	% Preventive maintenance completed on schedule (within 500 miles of target mileage)	100%	100%	100%
	c. Maximize service productivity	Passengers per revenue vehicle hour	10 passengers/hr	15 passengers/hr	10 passengers/hr
	d. Monitor cost recovery through fare box receipts	% Cost recovery through fare box receipts	10%	15%	10%
3. Provide accessible transit service	a. All vehicles equipped with working lifts.	% Vehicles equipped with working lifts	100%	100%	100%
	b. Concentrations of elders and persons with disabilities served by transit	% of known concentrations of elders and persons with disabilities served by transit	NA	75%	75%
	c. Provide adequate capacity to meet demand	Peak loading conditions not to exceed 150% of seated capacity	90%	90%	90%
	d. Work with community to identify areas where new services are required	Meetings with community groups, employers, and response to comments from public	All requests for service response within 30 days of submittal, resolution within six months of submittal	All requests for service response within 30 days of submittal, resolution within six months of submittal	All requests for service response within 30 days of submittal, resolution within six months of submittal

Table 4-2 Paratransit Goals, Objectives, Performance Measures, and Standards

Goal	Objective	Performance Measure	Standard
1. Provide a transit system that effectively meets community needs	a. Provide a local paratransit system which meets all ADA criteria	Paratransit service available to all ADA eligible customers whose origins and destinations area within 3/4 mile of a fixed route, during periods when fixed routes operate	100%
		Paratransit service available on request with no more than previous day notice	100%
		% Service denials- trips not accommodated within 1 hour of request	0%
	b. Provide reliable transit service	% of paratransit pickups within 15 minutes before or after scheduled pickup time	90%
		Paratransit missed trips	0
	c. Provide safe transit service	Miles between preventable accidents	100,000
2. Operate and manage the transit system effectively	a. Maximize service productivity	Passengers per revenue vehicle hour	2.0 passengers/hr
	b. Monitor cost recovery through fare box receipts	% Cost recovery through fare box receipts	10%

C. Current Performance

Due to the limited information available on the performance of specialized transportation in Maui County and the lack of historical data available on fixed route services, performance trends have not been established for this plan. Data that are available have been summarized in the following sections in order to provide a better understanding of transit performance in Maui County and helped inform the choice of standards for performance measures.

1. Fixed Route Performance

Implemented in July 2004, the Maui fixed-route transit system saw a monthly ridership high of 7,219 in July during the fare free month. Despite the decrease in ridership after the July promotion, the system has seen a steady increase in ridership. Ridership on Routes A, B, and C in August was 5,587 and in September it had grown to 5,709. The average passenger fare in August on Routes A, B, and C was $1.56. The annual operating cost for these routes was roughly $491,400 to operate 10,920 service hours and over 178,000 service miles.

Public transit service operated by MEO (Routes 1 and 2 and the rural shuttles) has an estimated cost per hour of $36.90. Additional performance data include the following:

- Annual service hours on Routes 1 and 2 are 7,176 at a cost of roughly $296,000
- Annual service hours for the rural shuttles are 15,312 at a cost of roughly $565,000
- Estimated annual service miles on Routes 1 and 2 is almost 60,000 miles
- First quarter ridership on Routes 1 and 2 was approximately 19,345

2. Specialized Transportation Performance

MEO operates the majority of specialized transportation for Maui County programs, they were discussed in detail in Chapter 2. During the first quarter MEO served 63,557 passengers through these programs. Based on this performance, it is reasonable to expect that the annual figure would be around 254,000, 20 percent less than projected in the annual budget. MEO has a FY 2005 funding level of $3,811,349 and anticipates providing 100,066 annual service hours during this fiscal year. MEO has an average cost per passenger for specialized transportation programs of $39.04.

CHAPTER 5: SERVICE IMPROVEMENT PROGRAM

This chapter represents the culmination of our findings from the analysis of existing conditions, community outreach efforts and evaluation of current transit services and provides the guidance needed to implement a comprehensive public transit system and complementary ADA paratransit program. The five sections in the chapter are as follows:

- **Service Administration** recommends how the County ought to administer and operate the transit and paratransit services.
- **Organizational Structure** outlines the staffing requirements to administer the services and describes the various roles and responsibilities.
- **Fixed Route Service Plan** details all of the service recommendations for the public transit service – from specific route alignments and service span recommendations, to how the services should be phased in over the five-year timeframe.
- **Complementary Paratransit Program** explains the requirements for the ADA mandated complementary paratransit service, estimates demand for the service and recommends how the service should be operated.
- **Capital Investment Program** describes all the capital elements needed to implement the public transit and complementary paratransit services – from benches to vehicles, estimates the requirements for Maui, and defines the corresponding cost implications.

A. Service Administration

Any discussion of public transit service must also include a discussion of how that service would be managed. This issue was first examined in the "Public Transportation Plan for the Island of Maui" by Kaku Associates, Inc. (November 2003). The analysis took into consideration the organizational structure that will be used to manage the transit system, ownership versus leasing of vehicles, and contract labor versus hiring of additional DOT employees. Although there are a number of organizational structures available for the operation of a public transit system, the three most relevant structures were discussed in conjunction with this SRTP. They are as follows:

1. County ownership and administration with contracted operation
2. County ownership and operation
3. Private ownership and operation

1. County Ownership and Administration with Contracted Operation

This structure assumes full ownership of all vehicles and transit centers by the County with the management, and operation of the system contracted to an outside entity under a competitive bidding system. The contracted operator would use the county-owned vehicles to provide transit service and would be responsible for maintaining the vehicles. The County would provide policy direction over issues related to coverage, level of service, and days and hours of operation as well as monitor operator performance and compliance with the service contract.

a. Advantages

- The County can take advantage of federal grants to purchase equipment and other capital improvements and to obtain operating grants.
- The County, as a public entity, is more likely to obtain financing than a private operator, which will facilitate the purchase of equipment and facilities for the system.
- The County Council would serve as the official policy board with authority to make all financial decisions.
- Contract services are often significantly more cost-effective than operating programs in-house.
- This arrangement would take advantage of the local transportation services industry to provide maintenance facilities and staff, drivers, dispatchers, and service administrators.

b. Disadvantages

- The County loses a certain amount of control over the day-to-day operation of the system.
- The County will remain liable for the system and a certain amount of oversight will be required to ensure that the contractor is fulfilling their agreement satisfactorily.

2. County Ownership and Operation

In addition to owning the transit vehicles and facilities, the County would be responsible for maintaining and operating the vehicles. The County would have to create a full agency to manage and operate the system. Employees of this agency would be subject to wage and personnel regulations similar to other County employees. The agency budget would become part of, and subject to, the regular County budgeting process.

a. Advantages

- The County can control all aspects of the managing and operating the transit service.
- The County, as a public entity, is more likely to obtain financing than a private operator, which will facilitate the purchase of equipment and facilities for the system.
- The County can take advantage of federal grants to purchase equipment and other capital improvements and to obtain operating grants.
- Existing county maintenance facilities and staff could be used to support the service.
- The County Council would serve as the official policy board with authority to make all financial decisions.

b. Disadvantages

- The structure would require a significant expansion of County employees and functions – including supervisors, drivers, dispatchers, administrators, maintenance staff, etc.
- Transit employees would be included under civil service rules and regulations adding to the overall cost of the transit system.

3. Private Ownership and Operation

Transit service in Maui has been, and continues to be operated in some areas utilizing this structure (such as the Akina service in West Maui). A private firm in most situations is faced with near impossibility of making a profit. In an effort to alleviate this situation for private firms, some communities have subsidized private systems through the use of tax relief and subsidy contracts from local funds, which guarantee a fixed operating ratio of gross expenses to gross revenue or guarantee a certain percentage of profit. Although some service has succeeded in private operation, there has been a lack of consistency in the level of service and it has been difficult to maintain adequate coverage and reliability.

a. Advantages

- Local government officials inexperienced in operating and managing public transit systems are relieved of the responsibility of managing the system.
- County is not responsible for securing all of the financial resources needed to operate the transit system.

b. Disadvantages

- The private firm is not eligible for FTA capital or operating funds.
- There is no accountability to the public to provide reliable transit service.
- A lack of accountability can create instability in route scheduling and coverage.
- The incentive of the operator to provide service is dependent on the existence of a profit.
- The system does not operate as public service.

4. Preferred Alternative

There are a number of factors to consider when selecting the preferred administration alternative; they are listed below.

- Which alternatives will provide the most stable funding source(s).
- Which alternatives will provide the most cost-effective and efficient service.
- Which alternatives will result in the most effective and reliable transit service.
- Which alternatives can be implemented quickly and sustained over time.

In addition to reviewing of the three structures above, discussing the alternatives with County staff, policy makers, and current service operators, and reviewing comments received from the public outreach, these issues were considered in great detail. Ultimately, the ability to use federal funding, leverage local transportation experience and facilities, minimize county staffing requirements while providing a stable, responsive transit system led to the conclusion that the most appropriate alternative for Maui County is county ownership and administration with contracted operation. Based on this recommendation, the organizational structure outlines the roles and responsibilities of the county with regards to the ownership and administration of the transit services.

In the longer term, the County should consider building additional transit facilities, leasing them to the service contractor and leveraging federal capital funding to reduce ongoing costs.

B. Organizational Structure

1. Maui County

The County of Maui is a county with a mayor as the chief executive officer. Among other roles, the mayor is charged with supervising all county departments, including the Department of Transportation. The County Council is the legislative and policy-making body of the county and is comprised of nine members who are elected at-large to a two-year term.

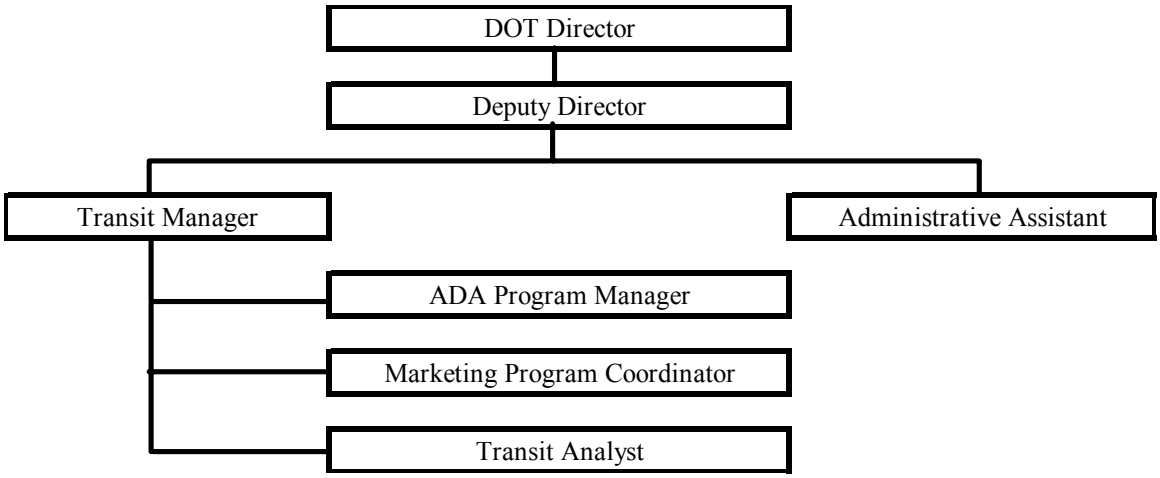
As discussed in the existing conditions chapter, the Department of Transportation is responsible for the planning and implementation of all modes of transportation in the county – which includes public transit, complementary paratransit service, and specialized transportation. As the department matures beyond its two years, its duties and functions will continue to be refined. One area in which its activities can be more clearly defined is in the area of public transit. The next section proposes the responsibilities, which MDOT needs to assume to effectively and efficiently implement transit service.

2. Maui Transit

In order to effectively administer the transit service, MDOT should establish a transit division whose duties are defined separately from general DOT functions. This does not preclude DOT staff from filling the described roles, but clarifies the roles and responsibilities of staff with regard to the transit service.

As discussed above, it is recommended that the County contract operation of the service to a private operator who will be responsible for day-to-day operations and maintenance. Therefore the County will be responsible for the administration of the public transit service and complementary paratransit service. During the service build up, the transit division should be comprised of four employees: transit manager, ADA program manager, transit analyst, and marketing coordinator. The marketing coordinator is seen as playing a particularly important role in the first two years of service to build the identity of the service, to promote the service, and to build a solid ridership base. During the life of this plan, it does not appear to be necessary for the division to have dedicated administrative staff. Administrative duties can either be absorbed by the transit staff or shared with DOT's administrative assistant. An organizational chart illustrates these recommendations in Figure 5-1.

Figure 5-1 Maui Department of Transportation Organizational Chart



A brief description of the four transit division positions follows:

- **Transit Manager**. Directs, plans, and administers contract operations and activities of the County's public transit services; procures vehicles for the service; secures grant funding; works with transportation service providers, public agencies, and the general public in coordinating transit services and activities; supervises and evaluates other transit staff; and provides assistance to the director of transportation. It is expected that this would be a full-time position.

- **ADA Program Manager**. Under general supervision, plans, implements, and manages paratransit services to ensure that all related programs and services meet accessibility requirements; implements ADA eligibility process; monitors regulations and legislation on disability issues; prepares ADA paratransit plan; participates in vehicle procurement and facility designs to ensure accessibility; assists in the development of training programs related to disability awareness and ADA compliance; and will perform related duties as required. The number of residents who opt to qualify for ADA eligibility will influence whether this position needs to be full or part time.

- **Marketing Program Coordinator**. Under general supervision, provides assistance in development of marketing, community outreach and public information strategies that promote ridership and awareness of Maui's public transit system; coordinates and assists in the creation and implementation of a variety of transit related activities and events for the DOT – including travel training; and will provide assistance to other members of the transit division. This position could be a full or part-time position, depending on the level of effort committed to promoting the service.

- **Transit Analyst**. Under general supervision, provides staff support to the transit division in budgeting, monitoring contract compliance, procuring vehicles, applying for grants, monitoring maintenance and upkeep of capital infrastructure, tracking service performance, analysis and special projects. This could be a part-time position in the near term, though it is expected that as the service increases a full-time position will be required.

C. Fixed Route Service Plan

This section presents the service implementation plan for non-ADA public transit services on the Island of Maui. Complementary ADA paratransit, capital impacts, and finances are discussed separately in subsequent sections. All routes and services have been field checked for operational integrity and analyzed for applicability to a regional public transportation network. Having said this, an important step prior to implementation will be for transit vehicles to drive the proposed routes and fine tune the schedules as needed.

The strategy for the implementation plan has been driven by needs expressed by community members during an aggressive public outreach effort. Public meetings, stakeholder interviews, and driver and rider sessions informed the development of the recommendations detailed here.

These recommendations identify services to operate exclusively on the Island of Maui. As discussed in the existing conditions chapter, our preliminary investigation into the service setting, local conditions and transit needs on the Islands of Moloka'i and Lana'i suggested that the level of demand is such that fixed route transit services will not be warranted within the five year timeframe of this plan. Dial-a-ride and privately operated transportation services operated on those islands provide an appropriate level of service at the present time.

1. Service Delivery Methods

There are three types of service recommended in this plan. This mix of service delivery methods provides a variety of service options that are viable within the five-year timeframe of the plan. Due to the rural nature of Maui and the County's financial constraints, transit service will be focused in areas with existing transit service and in new areas of the County that are expected to have the highest need and demand for transit.

The main hub and core area for all County services is Central Maui - the towns of Kahului and Wailuku. Kahului and Wailuku are the geographic center of the island and were the most requested destination both for service and as a hub location during the public workshops. The three types of service recommended for Maui are defined below. Detailed routing, major stops and transfer locations are presented in Appendix 1. Draft schedules have been developed for each route in the final year of the plan and can be found in Appendix 2.

Along with each route description is a proposed route name and route number. Although MDOT may elect to change the nomenclature, we have identified both a route name and a number for each route. Some passengers will prefer to refer to a route by its descriptive name, while others will opt for the shorter number. Providing both options is generally good practice. The regional, or islander routes, are designated with the letter "X" which is commonly used to signify long-distance, express routes with limited stops. The local services are simply numbers, except in the case of routes that follow a loop. In this case, the letters A and B are used to signify the direction in which the bus is heading.

a. Fixed-Route Circulator Service

Based on an evaluation of the service alternatives, fixed-route, circulator service is the most appropriate service to operate in Central Maui. The local service will operate on two loops, one in Wailuku and one in Kahului, which provide coverage throughout Central Maui and connect persons to important destinations. These routes cover many of the stops currently served by Routes 1 and 2.

b. Islander Service

Islander service is regional, express bus service that will connect communities on the Island of Maui with fixed-route, limited stop service. Islander services will utilize Central Maui as a main hub and provide important connections for workers and visitors throughout the multiple communities on the island. In Central Maui, islander routes will connect to the circulator routes for access to the generators within those communities. In outlying communities, the islander service will connect to local services in order to access the smaller communities' trip generators.

c. Villager Service

Service in Maui's outlying communities is referred to as "villager service" and has been designed to operate as deviated fixed routes. These routes should be operated locally, in communities that can support fixed-route transit service, but that do not require the same level of service as in Kahului and Wailuku. The villager routes will operate on a fixed schedule with a fixed alignment, but ADA-eligible passengers may request that the vehicle deviate up to ¾ of a mile from its alignment to pick them up. The number of deviations allowed will depend on the particular route, specific deviation requests and the amount of time built into the schedule for such deviations.

2. Hub & Transit Center Locations

Hub locations are an important element of transit service in communities such as those in Maui because a high degree of mobility is critically dependent upon seamless connections between routes. The smaller communities on Maui are looking for access to primary locations in Central Maui that will likely require transferring from a regional, to a local service. It is critical that these connections be provided with the greatest convenience for residents and visitors in order for transit service to be an attractive option.

Two key hubs have been identified for this implementation plan. The primary hub, which will serve as the main transfer facility for all transit services, is the Queen Ka'ahumanu Center. The rear portion of the property (adjacent to Macy's and behind the parking structure) off the Wakea Avenue entrance is ideally suited for a hub location. It is a relatively central location for both Kahului and Wailuku, there is adequate space in the parking lot to accommodate numerous small transit vehicles, and it is a popular destination in and of itself. This location would allow all islander services to connect with the circulator services at a central location to facilitate connections throughout Wailuku, Kahului, and other communities. Another potential location identified during public input sessions was the open area around the intersection of Pu'unene Avenue and Dairy Road. Because this location would require infrastructure upgrades it is recommended that the Queen Ka'ahumanu Center be utilized as the primary hub in the short term, but service could be restructured in the future to utilize the location at Pu'unene Avenue and Dairy Road.

A secondary hub will provide a transfer location between the south and west sides of the island. The current transfer location at the Maui Ocean Center in Ma'alaea should continue to be used for timed transfers between services on the south side of the island and the west side of the island. This location provides for travel between West and South Maui without requiring travel into Central Maui. Service through this center would also offer connections to the Queen Ka'ahumanu Center hub.

An alternative location to replace the Maui Ocean Center at Ma'alaea as a secondary hub could enhance the transit service by reducing 'out of direction' travel on the islander routes. A transit

hub site could be developed around the park and ride facility at the intersection of North Kihei Road and Honoapi'ilani Highway. This location provides a quicker trip for persons traveling from Kihei and Wailea to Central Maui, presents passengers the alternative to drive part of their trip and then use transit to get to Central Maui, and offers high visibility for the transit service.

3. Service & Implementation Plan

The remainder of this section presents recommendations for a five-year service and implementation plan. Recommendations are provided by year and assume a 365-day operating schedule. Based on Maui's unique employment patterns and the predominance of tourists, demand is expected to be fairly consistent throughout the week. Resorts and most retail establishments operate seven days a week and the needs of employees in this sector were taken into consideration when developing the operating schedule. The transit service is phased in over the five-year period with incremental increases to service hours, frequency, and service span.

Table 5-1 summarizes the service characteristics in each of the five years of the plan, including service span and frequency, annual hours, service frequency by time of day and vehicle requirements. These elements are described in more detail below.

Daily Trips. Daily trips are the total number of round trips that each route will complete during the service day. Some routes have extra one-way trips to provide the best coverage possible.

Daily Hours. Daily hours are the total number of service hours to be provided on a typical day. Because the transit fleet will be stored at the contractor's facility (whose location could change over time as contractor's change) and because the contractor will be reimbursed for service hours, deadhead hours are not assessed.

Annual Hours. Annual hours are the yearly total based on daily hours and service operating 365 days per year.

Service Span. Service span is the time from when the first trip departs and the last trip ends each service day. Central Maui and islander routes will meet for the main "pulse" at the Queen Ka'ahumanu hub at 15 minutes before each hour. This will provide time for persons whose employment begins at the top of the hour to get to their jobs. The secondary pulse at Ma'alaea will take place at 13 minutes past the hour.

Service Frequency. Service frequency provides an analysis of how often buses will run during different periods of the service day. Based on the fully implemented service, most routes will operate at a consistent headway throughout the day. In the final years of the plan, two islander routes will have a higher service frequency during peak commute times.

Vehicle Requirement. This category provides an assessment of the number of vehicles required to operate the route service throughout the service day and guides the capital plan.

Table 5-1 Maui Bus Phasing Plan

Year One

	Hours				Frequency		Vehicles	
Route	Daily Trips	Daily Hours	Annual Hours	Service Span	Peak	Off Peak	Peak	Off Peak
Kahului Loop A	13	13	4,745	6:45 - 7:45	60	60	1	1
Wailuku Loop A	13	13	4,745	6:45 - 7:45	60	60	1	1
Lahaina Villager	0	0	0					
Kihei Villager	30	30	10,950	6:00 - 9:00	30	30	2	2
Lahaina Islander	15	30	10,950	5:45 - 9:45	60	60	2	2
Lahaina-Napili	15	15	5,475	6:00 - 9:00	60	60	1	1
Kihei Islander	15	30	10,950	5:45 - 9:45	60	60	2	2
Haiku Islander	0	0	0					
Makawao Islander	0	0	0					
Lahaina-Kihei Islander	0	0	0					
Total	**101**	**131**	**47,815**			**Total Vehicles**	9	9

Year Two

	Hours				Frequency		Vehicles	
Route	Daily Trips	Daily Hours	Annual Hours	Service Span	Peak	Off Peak	Peak	Off Peak
Kahului Loop A	13	13	4,745	6:45 - 7:45	60	60	1	1
Wailuku Loop A	13	13	4,745	6:45 - 7:45	60	60	1	1
Lahaina Villager	0	0	0					
Kihei Villager	30	30	10,950	6:00 - 9:00	30	30	2	2
Lahaina Islander	15	30	10,950	5:45 - 9:45	60	60	2	2
Lahaina-Napili	15	15	5,475	6:00 - 9:00	60	60	1	1
Kihei Islander	15	30	10,950	5:45 - 9:45	60	60	2	2
Haiku Islander	0	0	0		180	180	0	0
Makawao Islander	0	0	0		180	180	0	0
Lahaina-Kihei Islander	0		0					
Total	**101**	**131**	**47,815**			**Total Vehicles**	9	9

Year Three

	Hours				Frequency		Vehicles	
Route	Daily Trips	Daily Hours	Annual Hours	Service Span	Peak	Off Peak	Peak	Off Peak
Kahului Loop A & B	30	30	10,950	6:45 - 9:45	60	60	2	2
Wailuku Loop A & B	30	30	10,950	6:45 - 9:45	60	60	2	2
Lahaina Villager	15	15.5	5,658	5:30 - 9:00	60	60	1	1
Kihei Villager	32	32	11,680	6:00 - 10:00	30	30	2	2
Lahaina Islander	15	30	10,950	5:45 - 9:45	60	60	2	2
Lahaina-Napili	15	15	5,475	6:00 - 9:00	60	60	1	1
Kihei Islander	15	30	10,950	5:45 - 9:45	60	60	2	2
Haiku Islander	5	7.5	2,738	6:15 -7:45	180	180	0.5	0.5
Makawao Islander	6	9	3,285	4:45 - 9:15	180	180	0.5	0.5
Lahaina-Kihei Islander	1	3	1,095	1 Night Trip				NA
Total	**164**	**202**	**73,730**			**Total Vehicles**	13	13

Year Four

	Hours				Frequency		Vehicles	
Route	Daily Trips	Daily Hours	Annual Hours	Service Span	Peak	Off Peak	Peak	Off Peak
Kahului Loop A & B	30	30	10,950	6:45 - 9:45	60	60	2	2
Wailuku Loop A & B	30	30	10,950	6:45 - 9:45	60	60	2	2
Lahaina Villager	15	15.5	5,658	5:30 - 9:00	60	60	1	1
Kihei Villager	32	32	11,680	6:00 - 10:00	30	30	2	2
Lahaina Islander	15	30	10,950	5:45 - 9:45	60	60	2	2
Lahaina-Napili	15	15	5,475	6:00 - 9:00	60	60	1	1
Kihei Islander	15	30	10,950	5:45 - 9:45	60	60	2	2
Haiku Islander	5	7.5	2,738	6:15 -7:45	180	180	0.5	0.5
Makawao Islander	6	9	3,285	4:45 - 9:15	180	180	0.5	0.5
Lahaina-Kihei Islander	1	3	1,095	1 Night Trip				NA
Total	**164**	**202**	**73,730**			**Total Vehicles**	13	13

Year Five

	Hours				Frequency		Vehicles	
Route	Daily Trips	Daily Hours	Annual Hours	Service Span	Peak	Off Peak	Peak	Off Peak
Kahului Loop A & B	32	32	11,680	6:45 - 10:45	60	60	2	2
Wailuku Loop A & B	32	32	11,680	6:45 - 10:45	60	60	2	2
Lahaina Villager	16	16.5	6,023	5:30 - 10:00	60	60	1	1
Kihei Villager	32	32	11,680	6:00 - 10:00	30	30	2	2
Lahaina Islander	24	48	17,520	5:45 - 10:45	30	60	4	2
Lahaina-Napili	16	16	5,840	6:00 - 10:00	60	60	1	1
Kihei Islander	24	48	17,520	5:45 - 10:45	30	60	4	2
Haiku Islander	11	16.5	6,023	6:15 -10:45	90	90	1	1
Makawao Islander	11	16.5	6,023	6:15 -10:45	90	90	1	1
Lahaina-Kihei Islander	1	3	1,095	1 Night Trip				NA
Total	**199**	**260.5**	**95,083**			**Total Vehicles**	18	14

a. Year 1

The first year of service is an opportunity to refine and enhance current services. As the implementation year is fast approaching, it is difficult to accurately assess when modifications can be made and if capital and operating factors will allow for complete implementation. For financial planning, recommendations have been assessed for a full year of service.

It is recommended that services operate on similar frequencies throughout the service day and are provided seven days a week. This service schedule provides the County with a consistent level of service that will promote overall mobility and provide core services that can be expanded upon in future years.

Highlights of this service year include the restructuring of service in Kahului and Wailuku, refinement of islander services that provide mobility options between South and West Maui, and from these locations into Central Maui. Villager services will be modified and expanded to provide service tailored to the residential and visitor markets within outlying communities. The following provides detailed service recommendations and characteristics for Year 1 transit service.

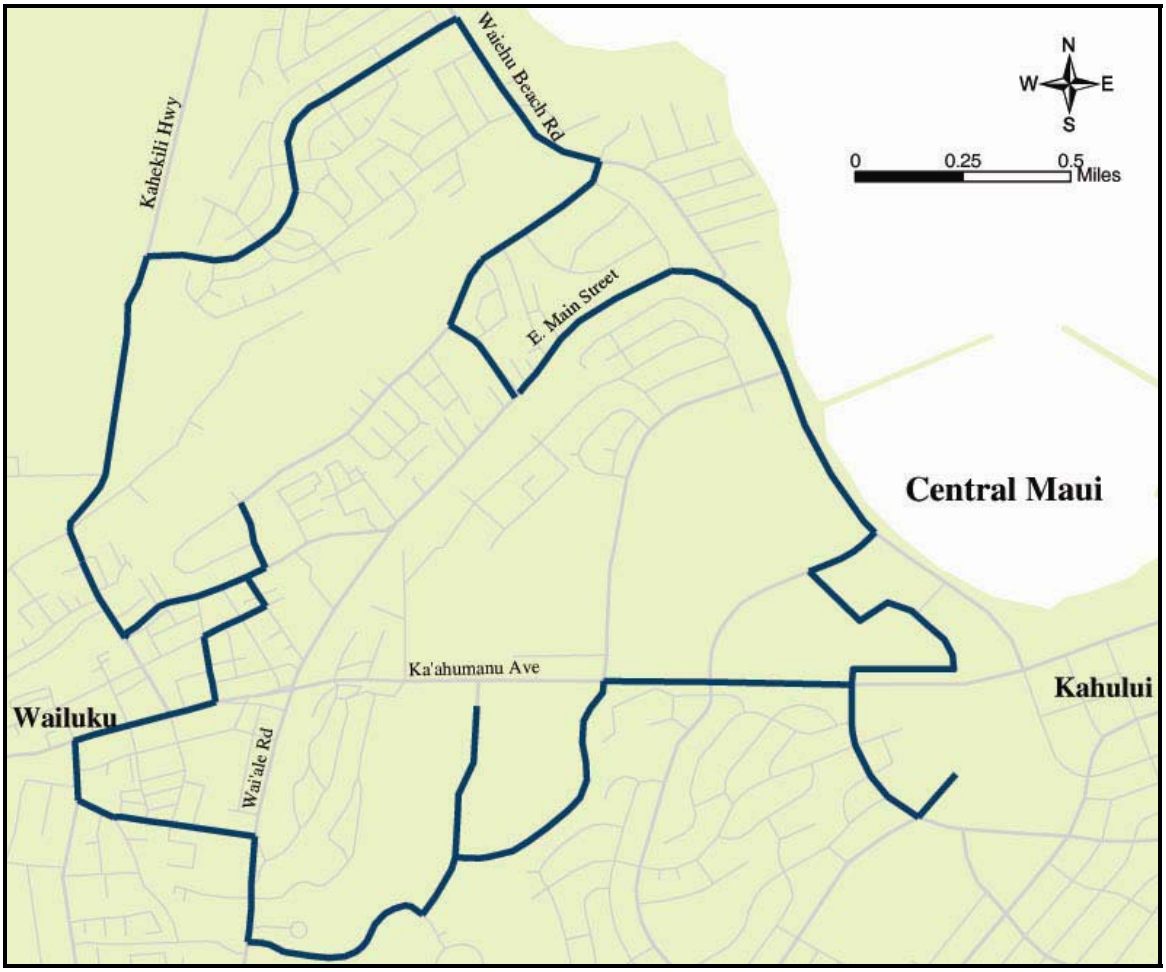
Tables in Appendix 2 provide additional detail on routing, route length, running time, major and minor stop locations and potential operating issues.

Circulator Service – Central Maui

Two loops have been developed to operate on 60-minute headways to serve the many trip generators in Wailuku and Kahului. Each loop uses the Queen Ka'ahumanu Center as a hub, with one route serving Kahului and the other serving Wailuku. Service will "pulse" to provide timed transfers between the circulators as well as between the islander routes (as detailed below). Each route is described below.

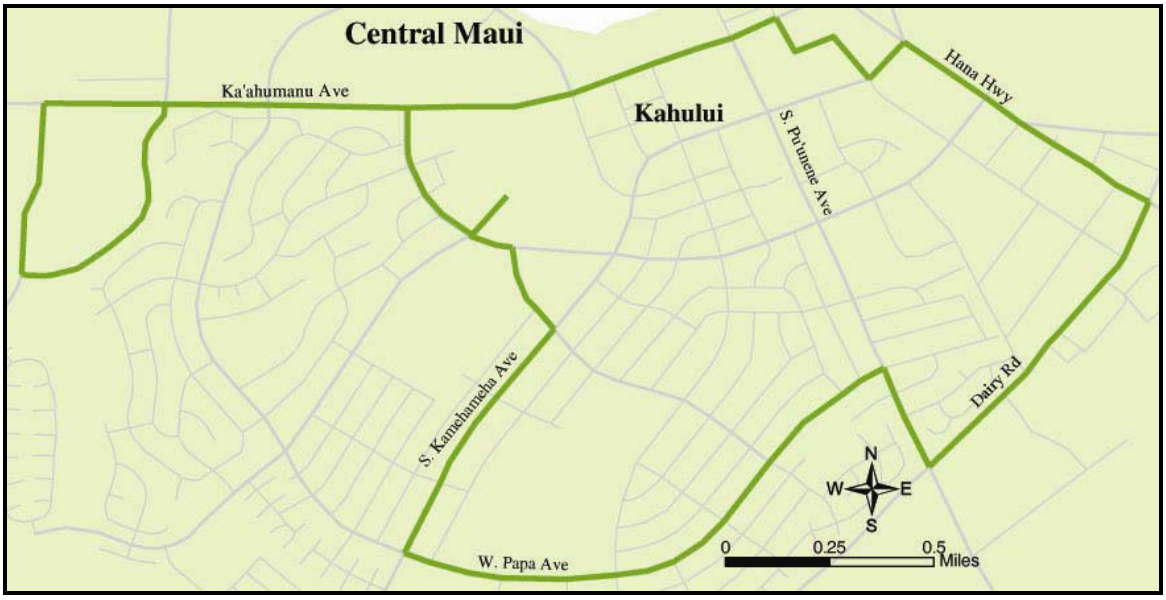
11A Wailuku Loop A. The Wailuku Loop operates on a 60-minute headway within Wailuku and Waiehu, connecting the Queen Ka'ahumanu Center to numerous generators and residential areas. Major locations include Kaiser, Maui Memorial Hospital, the State Government Building, Ooka Market, the post office, residential areas along Market and Makaala Drive, Sack 'n Save, the Wailuku Community Center, and Maui Community College. One bus will be required to operate this route.

Figure 5-2 Route 11A - Wailuku Loop A



12A Kahului Loop A. Kahului Loop A serves the residential areas along Kamehameha Avenue and Papa Street, the retail and employment areas along Dairy Road, and the Maui Mall. Upon return to the Queen Ka'ahumanu Center the route will provide a direct connection to the Kaiser hospital and Maui Lani Clinic and Maui Memorial Hospital. One bus will be required to operate this route.

Figure 5-3 Route 12A - Kahului Loop A

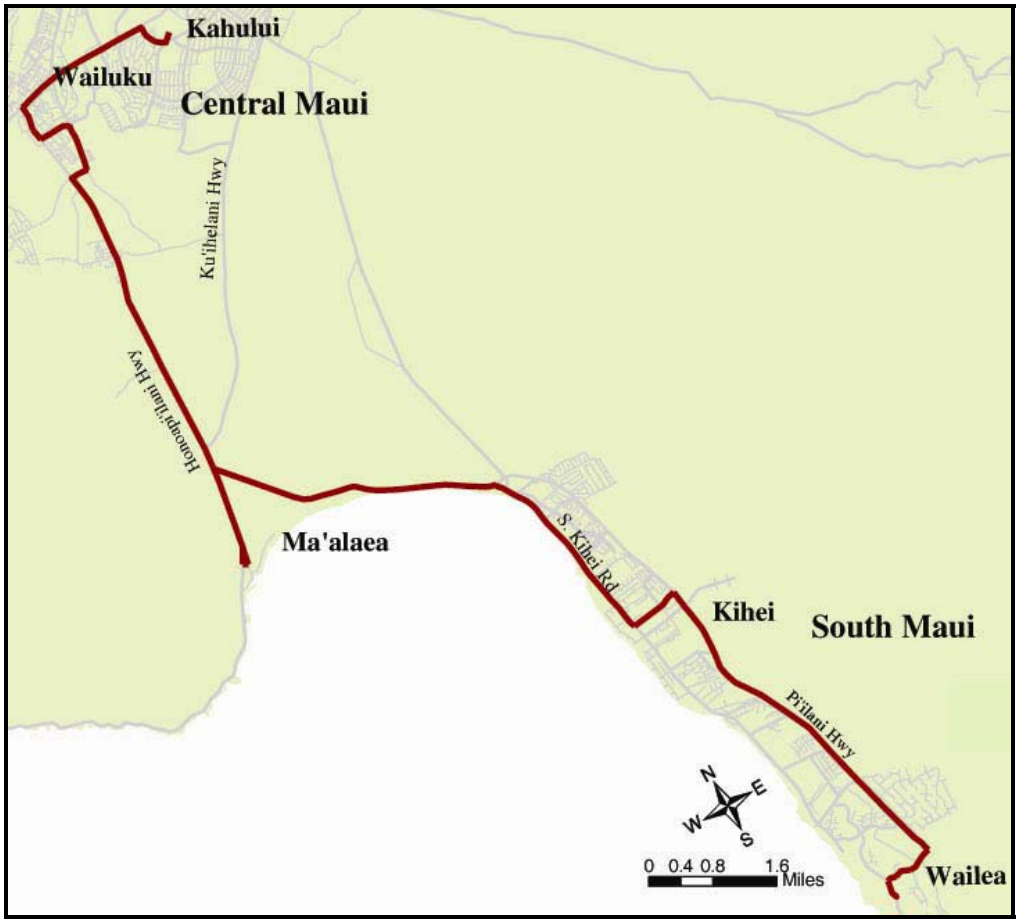


Islander Services – Central & South Maui

Three islander express services are recommended for implementation in Year One. The Kihei and Lahaina routes will operate on a "pulse" in order to provide timed transfers at two locations – the Maui Ocean Center at Ma'alaea and the Queen Ka'ahumanu Center in Kahului. A more detailed route description and draft schedules are provided in Appendices 2 and 3. Below is a description of each route:

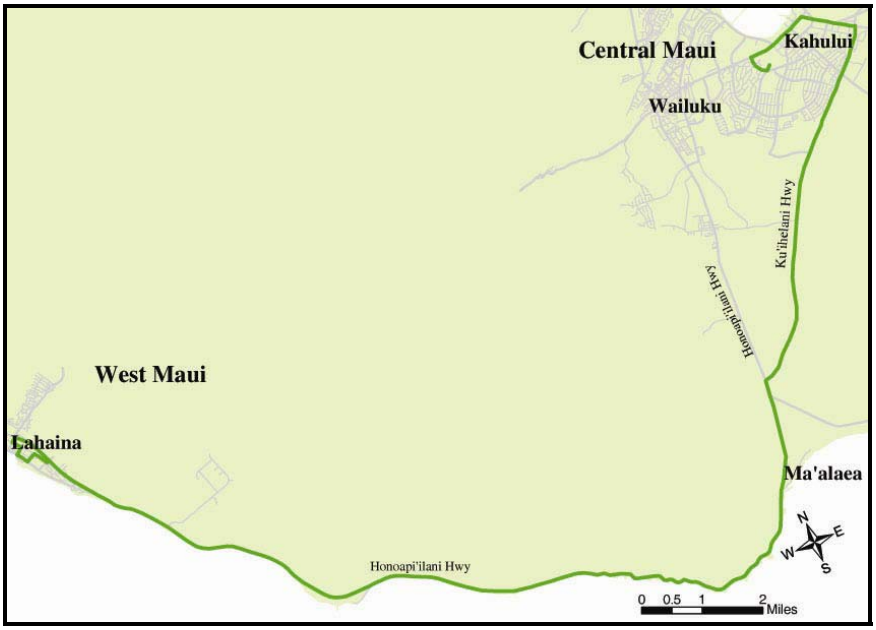
2X Kihei Islander. This route provides a 120-minute round trip route between the Shops at Wailea and the Queen Ka'ahumanu Center with stops at the Pi'ilani Village Shopping Center, the Maui Ocean Center at Ma'alaea, and the State Government Building in Wailuku. Connections to Lahaina are available through a timed transfer at the Maui Ocean Center. This route will provide local service along Kihei Road north of the Pi'ilani Village Shopping Center in Kihei, but operates as an express along the remainder of the route. Connections to circulators in Central Maui are available through the pulse at the Queen Ka'ahumanu Center. Two buses will be required for the full day to maintain 30-minute headways.

Figure 5-4 Route 2X - Kihei Islander



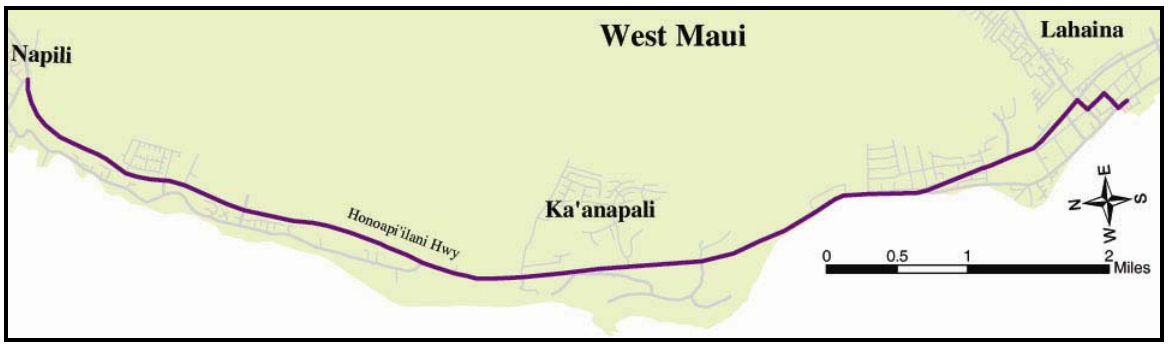
3X Lahaina Islander. This 120-minute round trip route connects Lahaina at the Wharf Cinema Center to the Queen Ka'ahumanu Center with stops at the Maui Ocean Center at Ma'alaea and the Maui Marketplace. Connections to Kihei are available through a timed transfer at the Maui Ocean Center. Connections to circulators in Central Maui are available at the Queen Ka'ahumanu Center. Two buses will be required for the full day to maintain hourly frequencies.

Figure 5-5 Route 3X - Lahaina Islander



4X Lahaina-Napili Islander. The route will provide 60-minute headways between Lahaina (Wharf Cinema Center) and Napili with stops in Ka'anapali, Honokowai, and Kahana. Service was provided along this corridor by a private operator, but has been discontinued. There is still need to access these communities as resorts and other generators are large employment centers. Service should operate along the Honoapi'ilani Highway with stops only at locations along this roadway to speed operation and reduce travel times. It is expected that MDOT would coordinate with major employers to facilitate transport of employees between their employment location and the transit stop. One bus will be required to operate this route.

Figure 5-6 Route 4X - Lahaina-Napili Islander

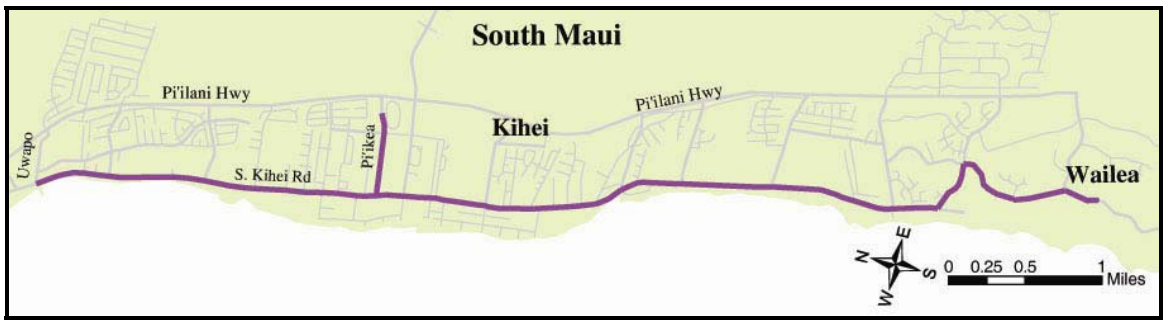


Villager Services – Kihei

Villager services are deviated fixed routes intended to provide local, timed connections in the communities of Kihei and Wailea for residents and visitors. The linear geography of these towns makes them excellent candidates for deviated fixed route services. These services are a hybrid of fixed route and paratransit service. The parameters of deviated fixed route service will be covered as part of the ADA component of the plan. More detailed route information and draft schedules are provided in Appendices 2 and 3. Below is a description of each route:

21 Kihei Villager. The Kihei Villager will operate between Uwapo Road and the Shops at Wailea. This 60-minute round trip provides connections along South Kihei Road with service to the Pi'ilani Shopping Center. One bus will be required for the full day.

Figure 5-7 Route 21 - Kihei Villager



b. Year 2

The second implementation year of the SRTP will be a continuation of service enhancements introduced in Year 1. By not introducing new services during the second year of the plan, transit passengers will have a chance to familiarize themselves with the system and Maui County will be able to focus on making minor adjustments to streamline route operation.

c. Year 3

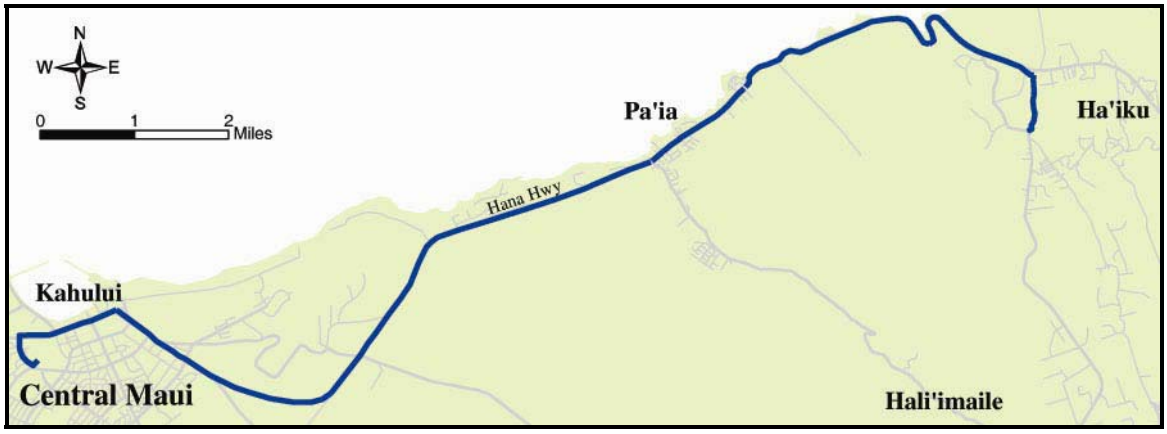
The third year of service implementation is an important year for service increases. Core service on the Central Maui circulators will be enhanced with the introduction of buses running in the opposite direction on each loop. An increase in service on the loops will improve mobility for local residents and visitors traveling into Central Maui on islander routes. Year 3 will also see the introduction of more islander services, which will provide limited connections to the Upcountry communities of Pa'ia, Ha'iku, Pukalani and Makawao. These routes will provide Upcountry connections every three hours. This frequency will be increased in later years of the plan but will initiate public transit service options between Upcountry and Central Maui. This service and its operating parameters meet a need identified by attendees at public meetings Upcountry. The final service increases will be to begin operation of a local route in Lahaina to improve mobility within that community.

These new routes are described below:

Islander Services – Upcountry

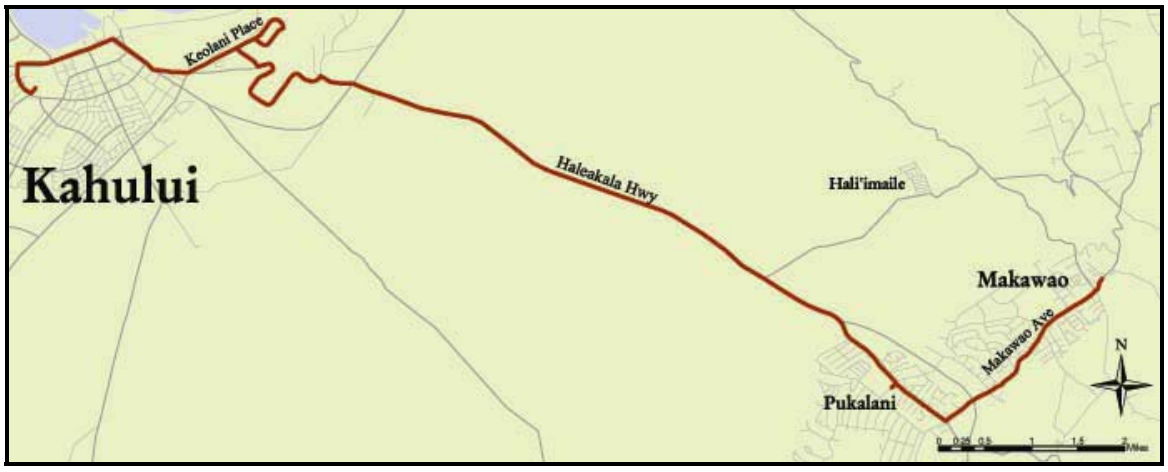
5X Ha'iku Islander. The 90-minute round trip service will provide connections between Ha'iku Marketplace and Queen Ka'ahumanu Center with stops at the Ha'iku Community Center and Pa'ia. Service should be offered every 3 hours with 1 bus interlined to serve both the Ha'iku and Makawao routes. Due to the limited service frequency, only half of the runs will pulse with the other islander routes at Queen Ka'ahumanu Center.

Figure 5-8 Route 5X - Ha'iku Islander



6X Makawao Islander. The 90-minute round trip will provide connections between downtown Makawao and Queen Ka'ahumanu Center with stops at the Pukalani Terrace Shopping Center, and the Kahului Airport. Service should be offered every 3 hours with 1 bus interlined to serve both the Ha'iku and Makawao routes. The earliest run of the day will connect to Makawao to offer employment connections to Central Maui. Due to the limited service frequency, only half of the runs will pulse with the other islander routes at Queen Ka'ahumanu Center.

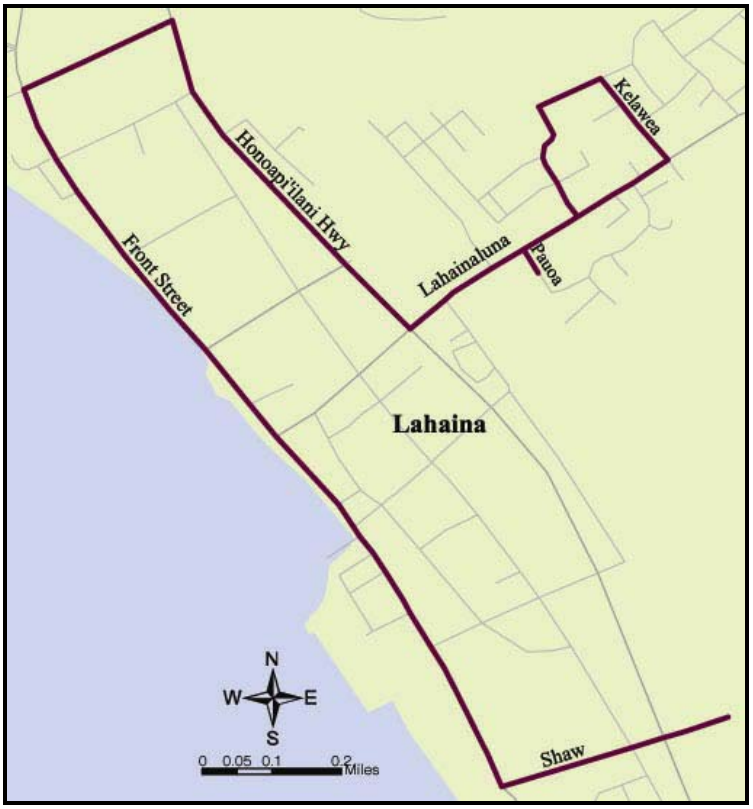
Figure 5-9 Route 6X - Makawao Islander



Villager Services – Lahaina

31 Lahaina Villager. The Lahaina Villager provides 60-minute round trips between Upper Lahainaluna Road and the Lahaina Youth Center. The route also provides connections to Hale Mahaolu, the Lahaina Senior Center, Lahaina Cannery Mall, Front Street, and the Youth Center on Shaw Street. One bus will be required for the full day.

Figure 5-10 Route 31 - Lahaina Villager



Appendix 2 provides a more detailed look at the Ha'iku and Makawao Islander routes as described above and a summary of service characteristics. Draft schedules are included in Appendix 3.

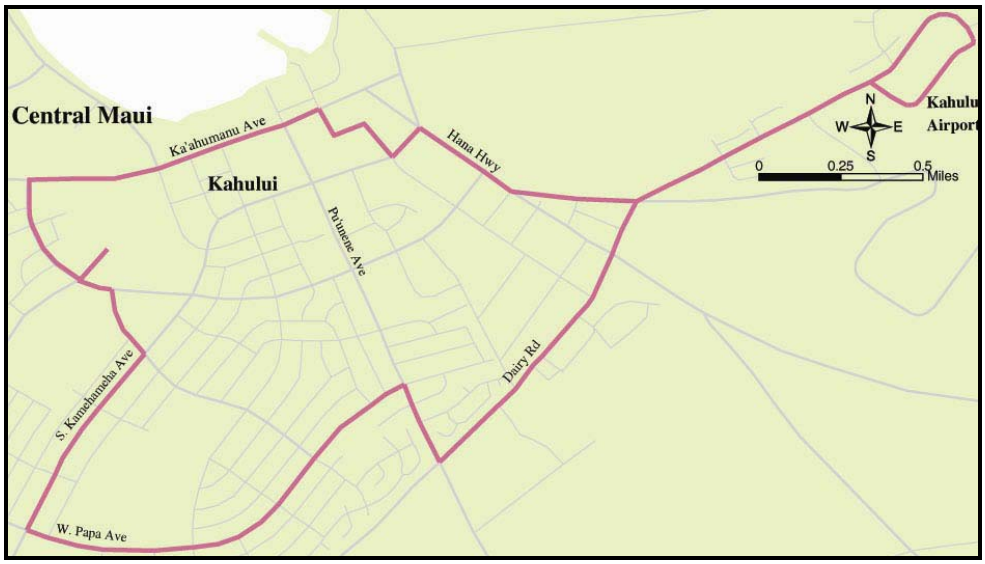
Increased service frequency on the Central Maui routes will be accomplished with the addition of two buses to operate in opposite directions. Although each route will still operate on 60-minute headways, passengers will effectively have service every 30 minutes due to the bi-directionality of the routes. These buses would pulse at :15 past each hour, meeting with some of the Ha'iku and Makawao Islander runs. These routes could be called Kahului Loop B and Wailuku Loop B and each is described below.

11B Wailuku Loop B. The Wailuku Loop B will operate on the reverse routing of Wailuku Loop A, providing faster connections from the Ka'ahumanu hub to Waiehu and the generators on Eha and Lower Main.

12B Kahului Loop B. The Kahului Loop B will operate in the opposite direction of Kahului Loop A, pulsing at the Queen Ka'ahumanu Center at :15 past the hour. There is one routing

difference for this circulator. Duplicative service to the medical area (Kaiser, Maui Memorial and Maui Lani) is no longer necessary, so Kahului Loop B has been modified to provide a connection to the airport. Consideration can be given to removing Airport connections on the Makawao Islander if timing on that route is an issue.

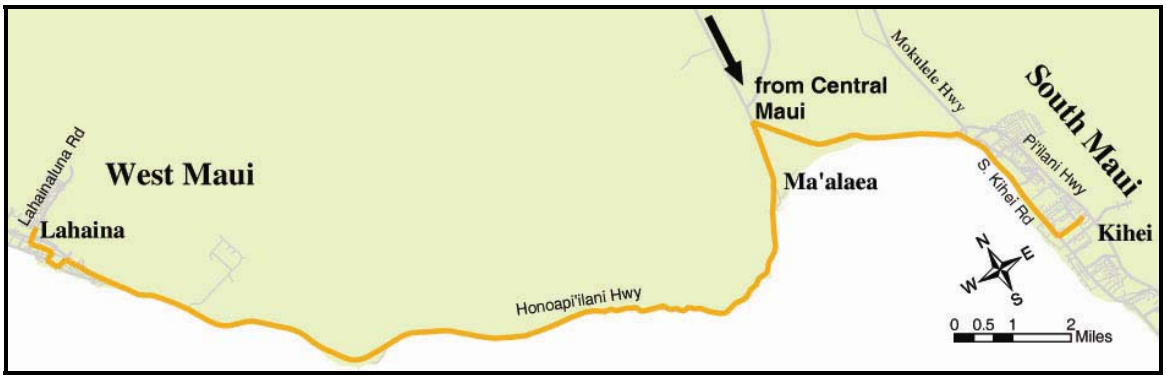
Figure 5-11 Route 12B - Kahului Loop B



Service will also be increased in South Maui with the addition of another vehicle to the 21 Kihei Villager route. This will provide 30-minute headways in a community that has had the highest level of transit use to date. It is also an excellent candidate for additional service due to the variety of potential passenger markets – from local workers, to retirees, to children, and visitors.

It is also recommended that a late-night islander service be implemented, which would provide one run after the islander services have stopped running. The 2|3X Kihei-Lahaina Islander can depart the Queen Ka'ahumanu Center at 10:45 a.m. and provide trips for persons who work late or have missed a connection to these communities.

Figure 5-12 Route 2|3X – Kihei-Lahaina Islander



Appendix 2 contains more detailed descriptions of all these routes as described above and a summary of service characteristics. Draft schedules are included in Appendix 3.

d. Year 4

The fourth implementation year is another year to maintain service levels and make minor modifications to improve service operation. Years 1 and 3 established service locations and routings, which can now be fine-tuned to provide convenient connections and reliable service to residents and visitors of Maui County. There will be no service changes during Year 4 of the SRTP.

e. Year 5

The final implementation year builds on the increases in earlier years with additional service frequency increases. The goal of this final year is to continue to increase mobility options throughout Maui County. In order to establish a service that is attractive to a wider market of residents and visitors to the County, the service must be frequent and offer convenient travel times. The services developed in this plan provide routes and services that address this goal. The County must continually identify needs and offer on-going service improvement in order to ensure that the transit system meets the growing needs of its riders.

Changes during the final implementation year consist of several service frequency increases. The Kihei and Lahaina Islander routes will operate on 30-minute headways during the morning and afternoon peak periods, requiring a total of four vehicles. The Ha'iku and Makawao Islander routes will provide 90-minute headways to Upcountry communities. This will increase the mobility options available in these communities, providing better employment connections. These modifications will require one bus for each route during the entire service day. In this year the service span for most routes will also be extended later in the evening to facilitate trips for workers with non-standard hours and residents and visitors who might be out for entertainment.

Service characteristics for Year 5 services are included in Appendix 2. Revised schedules for all routes are included in Appendix 3.

D. Complementary Paratransit Program

Public transit service mandates compliance with numerous federal laws and regulations. These requirements are imposed on all recipients of federal grants while others apply to all transit services regardless of funding source. Of primary importance are the provisions of the Americans with Disabilities Act of 1990 (ADA). This civil rights legislation has far reaching consequences in a number of areas, including public transportation.

On September 6, 1991, the U.S. Department of Transportation issued final regulations implementing certain provisions of the ADA. The Act states that public entities operating fixed route transportation service for the general public must also provide complementary paratransit service to persons unable to use the fixed route system. This regulation applies to the fixed route transit services that are now operated in Maui County as well as the planned services. It is recommended that some of the planned services operate as deviated fixed routes. What this means and its impact on the provision of the complementary paratransit service will also be discussed. All requirements are based on the "ADA Paratransit Handbook" that was prepared for the Urban Mass Transportation Administration (currently the Federal Transit Administration) Task Force on the Americans with Disabilities Act, September 1991, UMTA-MA-06-0206-91-1.

This chapter defines the requirements for ADA complementary paratransit services. Estimates are made of the ADA population and the projected level of demand. Operating alternatives to satisfy the demand are presented along with identification of the next steps to implement the ADA complementary paratransit services. Two important points should be kept in mind when reading this section. First, the discussions contained in this chapter refer exclusively to ADA complementary paratransit service. Maui County is fortunate to have a variety of paratransit services, such as those operated by MEO, which serve seniors and persons with disabilities. These services improve the mobility of and the quality of life for county residents, but are not ADA complementary service. Second, there is a great deal of uncertainty associated with estimating demand for ADA paratransit service and consequently, in estimating the cost of providing the service. Estimates are included in this section, but they should not be treated with the same degree of accuracy as estimates for the operation of the fixed route service.

1. Complementary Paratransit Requirements

This section defines the basic requirements of the ADA mandated paratransit service. It includes a listing of the service criteria, other service related requirements and ADA eligibility requirements.

a. Service Criteria

Complementary paratransit services related to fixed route bus services for eligible ADA users must meet the following criteria:

- The complementary paratransit service must be offered to all residents within ¾ of a mile on either side of the fixed route path. It should be noted that if there are no stops along a portion of a route, such as between two communities, then there is no need to provide complementary paratransit service along that segment.
- Regulations require that a person must be offered "next day" service on the paratransit system. This means that the system must accommodate requests for service for a particular day made during the previous day.

- Fares charged for the paratransit service cannot exceed twice the comparable fixed route fare. This means the comparable fixed route base, or full fare, and not any discounted fare.
- Requests for all types of trip purposes must be handled on an equal basis. Trip prioritization is not permitted.
- The complementary paratransit service must be offered during the same hours and days as the fixed route service.
- The regulations prohibit a system from denying a complementary paratransit trip due to capacity constraints. Provisions must be made to accommodate all ADA trips.

b. Other Service Related Criteria

There are a number of other service related requirements that must be adhered to in providing the ADA complementary paratransit service. These include:

- Clients can make reservations for repetitive trips over an extended period of time. These type trips are called "subscription trips." ADA regulations state that no more than 50 percent of trips in any time period can be subscription trips unless all non-subscription trips can be met. This ensures that there is adequate capacity to meet the demand for all ADA trips.
- ADA requires that vehicles used in the complementary paratransit service be accessible to and usable by individuals with disabilities. Provisions in the ADA vehicles must be made to handle all "common wheelchairs" that do not exceed 30" in width, 48" in length and do not weigh more than 600 pounds when occupied.
- Personal Care Attendants (PCAs) must be permitted to accompany ADA eligible riders and are not considered companions.
- There must be adequate communications capacity so that an ADA eligible rider can make a reservation on the system. Adequate telephone capacity, both voice and TDD, must be provided to enable users to schedule service and obtain information.
- Systems that operate fixed route and ADA complementary paratransit service shall ensure that personnel are properly trained with regard to ADA requirements.
- Systems may negotiate with a client to change the actual trip time by up to one hour either before or up to one hour after the requested trip time. This permits the system to be more efficient in terms of scheduling service.
- Clients must be able to call for a trip reservation the day before the trip is to be made. While next day service is mandatory, systems are encouraged to handle trips requests on the same day.

In addition to the service requirements that are prescribed by the ADA, there are other, more general requirements. How these requirements are met is left to the discretion of the operating agency, in this case MDOT. An example of this is the ADA requirement that operational practices not limit the availability of the service to ADA eligible persons. Additional explanation of these requirements specifies that there cannot be a substantial number of untimely pickups, trip denials, missed trips, or excessive trip lengths. Therefore, it would be up to MDOT to define an appropriate window for an "on time" pickup and standards for trip length.

c. ADA Eligibility

The ADA defines three categories of individuals who are eligible for complementary paratransit services.

- "Any individual with a disability who is unable, as a result of a physical or mental impairment (including a vision impairment), and without the assistance of another individual (except the operator of a wheelchair lift or other boarding assistance device), to board, ride, or disembark from any vehicle on the system which is readily accessible to and usable by individuals with disabilities." This is the primary category in which clients are determined to be ADA eligible.
- "Any individual with a disability who needs the assistance of a wheelchair lift or other boarding device and is able to board, ride, or disembark from any vehicle on the system which is readily accessible to and usable by individuals with disabilities --- when such a vehicle is not being used to provide the designated public transportation on the route." It should be noted that this category of eligibility is not applicable if all the vehicles operated in the fixed route service area are accessible.
- "Any individual with a disability has a specific impairment-related condition which prevents such individual from traveling to a boarding location or from a disembarking location on such a system." This category is termed to be one of "conditional" eligibility. In this case the client can use a fixed route bus but cannot access the bus stop location. Therefore, the system has the option of completing an entire trip using the ADA service or transferring the client to a fixed route bus where the client can complete the trip.

Eligibility is not restricted to residents, but also includes visitors to Maui County. Rather than increase their administrative costs, most ADA paratransit services honor a person's eligibility status as determined by the transit agency in their place of residence. It is recommended that Maui adopt such a policy as well. Although Maui has a large tourist population, the share that qualifies for ADA eligibility is expected to be very small.

Determining ADA eligibility is the responsibility of the system that is providing the public transit service. The ADA eligibility determination is based on an application that must be completed by the client with verification made by a health care or rehabilitation professional. In some instances, systems have requested that a medical doctor make the ADA eligibility verification. Attachment 1 includes two examples of ADA applications for the Rhode Island Public Transit Authority (RIPTA) that MDOT can use as guides. One is RIPTA's previous application and the second is its updated application form that applies more stringent standards to qualify for ADA eligibility. The updated application lists the major components of the ADA program and then requests information from the applicant as well as from the health care professional. The FTA Handbook also contains a sample guideline that can be used for a client application. Irrespective of the application, the transit system must notify the applicant within 21 days of receiving the completed application regarding their eligibility status for the complementary paratransit service.

2. Demand Estimates

The ADA Paratransit Handbook provides insights into the expected number of people that are ADA eligible for each of the three categories of eligibility noted above. In summary, the report indicates that, on average about 2.5 percent of a community's population is ADA eligible. Accordingly, it is assumed that approximately 2.5 percent of the residents that are located within ¾ of a mile of fixed route services are ADA eligible.

An analysis of the Maui County population identified the share of the population that is located within the corridors of the planned fixed route services. As illustrated in Table 5-2, four service areas were identified to reflect the separate geographic areas of transit service. The approximate year-round population for each service area, based on Census 2000, is listed below:

Table 5-2 Maui County Service Area Populations

Service Area*	Population**
West Maui	11,000
South Maui	16,000
Central Maui	38,000
Upcountry	16,000
Total	**80,000**

* West Maui encompasses the corridor from Lahaina to Napili.
South Maui includes the corridor from Wailea to Ma'alaea.
Central Maui includes Wailuku and Kahului.
Upcountry includes Pa'ia, Ha'iku, Makawao, and Pukalani.
** Population is calculated for the ¾-mile buffer around the proposed public transit routes.

Based on the assumption that 2.5 percent of the population is ADA eligible, the following table identifies the estimated ADA eligible clients by geographic area:

Table 5-3 ADA Eligible Residents by Service Area

Service Area	ADA Eligible
West Maui	275
South Maui	400
Central Maui	950
Upcountry	400
Total	**2,025**

Based on typical trip characteristics of population, it is estimated that about 2,025 Maui County residents in the service area of the fixed routes are ADA eligible.

The ADA complementary paratransit service must be offered to residents that live within ¾ of a mile of the fixed routes that serve these areas. In the current analysis, a conservative approach to estimating service demand has been followed in that no ADA trips are allocated to deviated fixed routes (which are proposed for Kihei and Lahaina) With this type of flexibly routed service, the bus can deviate up to ¾ of a mile of the fixed route to pick-up and drop-off an ADA eligible rider. This approach eliminates the need for separate ADA complementary paratransit services – reducing the demand and cost for that service. To operate deviated fixed routes, the vehicles must be accessible and be sized so that they can maneuver on small community streets. Further, the

scheduling and operation of the deviated fixed route service becomes more difficult than conventional bus service since the number of deviations can vary widely by route and time of day.

The ADA Paratransit Handbook indicates that on average, each ADA client will take about one trip per month in urban areas and 1.2 trips per month in rural settings. This information is based on empirical data from other systems. The Handbook also indicates that the demand could increase over time as more residents become aware of the service. There is additional uncertainty about the level of demand in Maui County due to the presence of alternative paratransit services offered by MEO. It is reasonable to expect that overall demand would be reduced by the presence of MEO's services, but it is also conceivable that some residents might prefer the ADA services' next-day trip scheduling and opt for it over MEO's services. At this point, there is no way to predict how the presence of MEO's specialized transit services will impact demand for ADA paratransit service. Therefore, for the initial demand projection, it is assumed that ADA eligible residents will take 1.1 trips each month. Another planning assumption made is that all ADA eligible trips will be served by the paratransit system. This conservative approach will help prevent ADA costs from exceeding its budget.

The following table includes projected trips per month for each service area.

Table 5-4 Projected ADA Paratransit Trips by Service Area

Service Area	Monthly Trips
West Maui	305
South Maui	440
Central Maui	1,045
Upcountry	440
Total	**2,230**

Overall, it is estimated that 2,230 trips will be made on the ADA complementary paratransit system each month. Since the fixed route service is planned for operation seven days a week, the daily ridership is expected to be 2,230 monthly trips divided by 30 days per month or about 75 rides per day. As seen in the table below, most of this daily ridership would be in the Central Maui area.

Table 5-5 Daily Ridership by Service Area

Service Area	Daily Trips
West Maui	10
South Maui	15
Central Maui	35
Upcountry	15
Total	**75**

The span of service varies by route and during the five-year implementation period. For planning purposes to assess projected demand, an ultimate span of service of about 15 hours each day was assumed. Based on the forecasts and assumptions, the ADA ridership productivity was estimated for each of the communities. As shown below, the projected ADA ridership will vary from a low of 0.67 trips per hour in West Maui to a high of 2.32 in Central Maui.

Table 5-6 Average Productivity for ADA Service, by Service Area

Service Area	Average Trips Per Hour
West Maui	0.67
South Maui	0.98
Central Maui	2.32
Upcountry	0.98
Total	**4.95**

Typically, ADA paratransit systems can provide ridership productivity levels of 2.0 to 2.5 trips per hour. Because of the geographic separation between the four main service areas, if Maui County were to operate the ADA paratransit service itself, a separate vehicle would likely be needed for each area. It is also possible that during some periods of the day that the demand in Central Maui may exceed the capacity of a single vehicle. Therefore, to adequately serve the projected ADA demand, a total of four or five vehicles would be needed.

This estimate represents the maximum commitment of resources since it assumes a separate operation with no coordination with other demand responsive services, such as those provided by MEO. The system would not be able to achieve any economies of scale or efficiencies resulting from a coordinated approach. Nonetheless, the estimate indicates the potential magnitude of resources to meet ADA regulations. These results are consistent with observations in other communities and transit system where the complementary paratransit system requires substantial funding and is in proportion to the dimensions (e.g., coverage and span) of the bus system.

3. Service Alternatives

To meet the requirements of the ADA, Maui County has the choice of setting up and operating its own paratransit system or of contracting out this service to an agency such as MEO. There are three basic operating scenarios that Maui County should consider.

The first scenario would be a complete in-house operation where Maui County staff would be responsible for all activities from call taking through operating and maintaining vehicles. If the County were to provide the service in house, it would require the acquisition of about six small vehicles (five for the service and one spare), hiring about 15 paratransit drivers, setting up a call taking and dispatching system, possibly obtaining paratransit software to handle trip scheduling and arranging for storage of the fleet and vehicle maintenance.

A second scenario would have Maui County be responsible for all administrative activities, call taking and trip scheduling. Responsibility for the vehicle operation and maintenance would be the contractor's. Usually with this arrangement, the transit agency would perform the scheduling function and provide the contractor with itineraries for each daily assignment. In this scenario the contractor would be paid on a per vehicle hour rate.

In many instances transit systems contract out the entire provision of ADA complementary services to an outside provider. In Maui County, this option appears to be the most advantageous. This is especially true if an agency, such as MEO, which already provides paratransit services to its clients throughout Maui County, is the selected vendor for the service. ADA permits a coordinated system in which both ADA and other client groups are transported by a single system.

Numerous opportunities exist for economies of scale and more productive and cost effective daily driver assignments. In turn, this results in an economical way to provide the ADA mandated paratransit service. This approach appears to be well suited to Maui County since the demand is relatively low and dispersed over a large service area, with the exception of Central Maui. Normally under such an arrangement, the contractor would be paid on a per trip rate.

The contracting method with the outside operator could vary according to a number of factors. The most common method is to use one flat fee for all trips. This flat fee would be developed to account for trip variations based on distance and whether or not a wheelchair lift trip was made. In other cases the per trip cost would vary if the person being transported were ambulatory or not. In still other cases the per trip cost would vary by trip length. This would be termed a distance-based cost structure. A distance-based structure may be appropriate in Maui to account for the longer ADA trips made between geographically dispersed communities.

To account for all possible trip types, a combined method could be used where bidders to operate the service would provide per-trip costs in four separate categories:

1. Ambulatory passenger within a community
2. Non-ambulatory passenger within a community
3. Ambulatory passenger between communities
4. Non-ambulatory passenger between communities

In this case, the contractor would have to maintain detailed records on the trips made for billing purposes.

To illustrate the fiscal impacts of fully contracting out the ADA paratransit service, the demand estimate was calculated on an annual basis and a trip cost was assumed. Based on monthly demand of 2,250 trips, there would be an estimated 27,000 trips made annually. Assuming a cost of $20.00 per trip, Maui County would incur annual expenses of $540,000 for the service. An allowance for additional use by tourists and seasonal residents of five percent could increase the annual cost by approximately $27,000.

If the service plan were to include flex routings in some areas, the ADA requirements would be reduced. For example, if the Villager routes in both Lahaina and the Kihei/Wailea area were operated as deviated fixed routes they would capture a share of the ADA trips. This would reduce the number of daily trips to be carried by the ADA paratransit service in these areas. It is estimated that only about half of the daily trips originally estimated in each of these areas would be made. This would reduce the daily trips by 13 trips, for a new total of 62 trips per day. The new amount of annual trips would be 22,320 and the lower annual cost would be $446,400, with another $23,200 for visitors and tourists.

4. ADA Plan for Complementary Paratransit Services

ADA regulations require that each area that is required to provide ADA complementary paratransit service must have a plan indicating how and when the ADA service will be operated. The plan itself should contain eight separate elements that are described in more detail in the ADA Paratransit Handbook. In summary, the eight elements are:

- General info about the agency submitting the plan;
- Description of the fixed route system;
- A description of existing paratransit services;
- Description of the proposed complementary paratransit system;
- Information on the proposed eligibility process;
- A description of the public participation process;
- Efforts to coordinate the provision of service with services of other overlapping or adjacent public agencies; and
- Completion of required certifications and resolutions.

The ADA Paratransit Handbook suggests that the plan be developed in conjunction with a consumer advisory process. This group would help make decisions on a number of aspects of the service, including:

- Reviewing and finalizing the ADA application;
- Defining the agency that reviews the applications and determines whether or not eligibility is to be granted;
- The process and agencies to be involved if there are appeals to the eligibility decision;
- Determining what process the system should follow in deciding to transfer a client to a fixed route from ADA vehicles in cases of "Conditional Eligibility" or to complete the entire trip using the ADA vehicle;
- How the service should be provided – in house or with an outside contractor such as MEO;
- The policy regarding service suspension for excessive no-shows and trip cancellations; and
- Content of a brochure that would be prepared to describe and advertise the ADA services.

As an initial step in this process, Maui County should contact State of Hawaii and Federal Transit Administration officials and discuss the steps they are taking in developing the ADA plan. This step is important because most ADA plans were developed more than 10 years ago when ADA regulations were first implemented. The transit officials may have different or additional requirements for new systems. However, even with possible differences, it is anticipated that the FTA will request that Maui County prepare an ADA plan that addresses the eight elements defined above.

It is also recommended that Maui County form an ADA Consumer Advisory Committee to satisfy item number six of the plan. In conjunction with this committee, Maui County will have to

address the items listed above plus any others that may arise during the public input process. The input and decisions made by this committee plus the information contained in this chapter will comprise a significant portion of the required ADA Plan. However, the ADA Plan will still have to be prepared and structured per the ADA Paratransit Handbook requirements. This ADA Plan preparation is the responsibility of the transit agency (i.e., Maui County).

As a final step in the ADA Plan, Maui County will be required to develop detailed milestones of what actions will be taken and when each action will be completed. This will include the point in time when the ADA complementary paratransit system will be operational and fully compliant with ADA regulations. In view of the nature of the new service, it is reasonable to expect compliance from the outset of the new bus service.

E. Capital Investment Program

Development of Maui's public transportation system will be phased in over the five years of this plan. The capital program is based on meeting the needs of the full expansion program in the last year, although equipment and facilities will be acquired throughout the plan's life. For the most part, the capital program would be required regardless of decisions related to the service operation. For example, bus stops signs would be required whether the service is operated by a contractor or by personnel of the Maui County Department of Transportation. Capital assets that might be treated differently would be revenue equipment and maintenance/operating base. In some localities, the public agencies use buses and transit facilities provided by the contractor. The more common situation is for the locality to provide these assets to the contractor at a nominal rate. This assures a competitive environment for contractor bidding and the ability to leverage local dollars and obtain federal funds.

Transit vehicles and a transit facility would require the largest capital expenditures. For this reason, as well as the issues related to operating strategy, they and directly related items have been identified separately. It is likely that during the first few years of the service deployment a contractor, or contractors, would utilize their own rolling stock and/or facilities. In the subsequent years, Maui County could follow the approach of many communities and make publicly owned assets available to the contractor. Alternatively, they could opt to combine public ownership with public operation by in-house personnel. To reflect the differences between the various elements of the capital program, the first category of items discussed in this section are those assets that would typically be owned and provided by Maui County.

The second category would be the major capital items (i.e., buses and transit maintenance/operating base) that may be provided initially by the service contractor. The combined capital needs for both asset categories are presented in the remainder of this section for implementation of the bus service plan. Capital purchases associated with the ADA-mandated complementary paratransit service are described elsewhere.

1. Category One Capital Needs

A number of items are needed to provide information and a comfortable environment for patrons. These capital needs, which would be the responsibility of the public sector, are relatively permanent features of the public transportation system and are described below:

a. Bus Stop Signs

Bus stop signs are important because - other than the transit vehicles themselves – they are the most visible element of the public transportation system. They should be placed at every bus stop and could indicate the following:

- Name and logo of the transit system;
- Route number, name and direction of the bus routes serving that stop;
- Transit system's telephone information number (including area code for visitors);
- Transit system's website address; and

- If the bus stop is located where there is a curb, the curb should be painted yellow or red or in some other manner to visually indicate that the bus stop is a "No Parking" and "No Standing" zone. Traffic signs should also be posted to restrict use to transit vehicles.

Bus stops and their accompanying signs should be placed approximately every other block within communities with transit service. This typically works out to about six bus stops per directional route mile. Due to infrastructure limitations in some communities, a standard of five stops per mile is used for estimation purposes for Maui. However, in the areas of the county between communities, bus stops will only be placed at potential destinations. For islander routes serving communities with local service (such as Kihei), a standard of one stop per four miles is used. For the other islander routes, the standard is one stop per two miles.

MDOT may choose to operate on a flag stop system between communities, whereby drivers can pull the bus over to pick up or discharge passengers at any safe location along the bus route. If such an approach is used it is vital to educate passengers about where there are unsafe stop locations. This would increase passengers' ability to access the service, without a corresponding increase in capital costs.

Bus stop signs vary in cost, but they typically cost approximately $60 each or about $120 each when installation costs are included. A sample sign is shown in Figure 5-13. Costs may be reduced if the bus stop signs can be produced in the County's roadside sign making shop and installed by staff of the public works department. Assuming the implementation of the full service plan, an assessment of the adjacent areas, and the assumed spacing guide for urban and rural areas (with no flag stop arrangements), it is estimated that 400 bus stop signs would be required, for a resulting expenditure of $48,000.

Figure 5-13 Sample Bus Stop Sign

b. Route and Schedule Information Sign

At major bus stops, a sign should be provided to indicate schedule information specific to that location. A strip map, which lists the times when each route serves the stop, should be provided along with information on major destinations along the bus routes. Strip maps also allow prospective passengers to check which transit routes intersect the bus route(s) serving that particular stop. Examples of these signs are shown in Figure 5-14.

Figure 5-14 Sample Route and Schedule Information Signs

It is estimated that the provision of these information signs or "ride guides" would be installed at ten percent of all bus stops. Sample locations in Lahaina would be the Lahaina Cannery Mall, Wharf Cinema Center, Lahaina Senior Center, Youth Center, and Hale Mahaolu. The nature of this sign and its resulting cost could vary significantly. For purposes of this analysis, a unit cost of $400 and a total of 40 signs would result in an expenditure of $16,000. As with the bus stop signs, costs could be reduced if these information signs were fabricated and installed by County staff.

c. Information Kiosks

The most elaborate transit information display would be a stand-alone information kiosk. These would be installed at transit hubs or centers where routes converge and/or ridership is relatively high. They could include route maps and schedules, transit system maps, neighborhood area maps, public telephones and racks of "take one" holders offering individual route timetables and pocket size system maps.

The prices of information kiosks range between $6,000 and $10,000, depending on their features. It is anticipated that kiosks would be installed at ten locations. Locations for these kiosks could include the Wharf Cinema Center, Queen Ka'ahumanu Center, and the State Government Building. With a unit cost of $8,000, they would require an expenditure of $80,000.

d. Passenger Waiting Benches

At more heavily utilized bus stops, benches should be provided so that passengers may sit down while waiting for a bus. If Maui's current sign ordinance were revised, passenger-waiting benches could include advertising along the back of the bench. Maui County could sell this

advertising space to offset the cost of operating the system and/or cover the cost of installation and maintenance. Typically, benches are provided at bus stops with 10 or more daily passenger boardings or those heavily frequented by seniors or persons with limited mobility.

The price of each bench is expected to cost approximately $500, when installed. Assuming that approximately 30 stand-alone benches (i.e., that they are not part of a passenger waiting shelter, as described subsequently) will be required by year 5, then approximately $15,000 would be required in the capital program for benches. Appropriate locations for benches include Pi'ilani Shopping Center, Kamaole Beach III, Shops at Wailea, Ma'alaea Harbor, and Keala and South Kihei Road.

e. Passenger Waiting Shelters

Depending upon the level of use, shelters should be provided at bus stops to protect waiting passengers from the elements, particularly the hot sun and rain. Similar to benches, passenger-waiting shelters may include advertising on one or more facades which can be sold to offset costs. Typically shelters are provided at bus stops with 25 or more daily passenger boardings. Additional shelters might be provided: due to weather conditions; at stops with a high level of use by seniors; or to expand the visibility of the transit service in a cost effective manner.

Depending on what is incorporated into their design, passenger waiting shelters may include various elements already mentioned, such as route and schedule information signage, benches, trash receptacles and backlighted panels with more comprehensive information (e.g., system maps, neighborhood maps, etc.) regarding the entire public transportation system.

An additional aspect of bus passenger waiting shelters to consider is that they can be utilized to promote a locally specific theme or identity. This could be especially effective in an area such as Maui County with its high level of tourism. For example, the bus shelters on the resort island of Bermuda are very distinctive. The shelters are constructed of limestone, which is a common local building material and provides the bus shelters with a very "Bermudian" flavor. However, keep in mind that these special, more elaborate treatments could double or triple shelter costs over modular or "off-the-shelf" units.

Finally, it should be noted that in many cases, benches, bicycle racks, trash receptacles and passenger waiting shelters may be sold together as an urban street furniture package. Similar to some of the other capital needs items described, the overall price can vary depending on the design of the product. However, due to the ability to provide profitable advertising on various elements of street furniture, many vendors are willing to provide these street furniture packages at no cost to the community. Depending on the terms of a contract, some vendors will either retain all of the advertising revenue or even share some of the profits with the transit system. A street furniture vendor has already approached Maui County to discuss arrangements for such a program. Due to the extensive start-up costs associated with new transit service and the ongoing cost of maintaining street furniture, it is recommended that MDOT and County Council explore amending the county's sign ordinance to permit the use of advertising on street furniture associated with the transit service.

Bus passenger waiting shelters typically cost from $4,000 to $5,000 each, depending on their features. Each waiting shelter would cost approximately $10,000 when installation is included. This cost assumes that the location is accessible and does not need additional infrastructure upgrades. It is assumed that approximately twenty shelters will be required by year 5, at a cost

of $200,000. Appropriate shelter locations include sites such as Ma'alaea Harbor and Wharf Cinema Center.

f. Transit Centers

Transit centers are typically provided at very high traffic locations where several bus routes meet, such as major shopping centers or recreational areas. In many cases, transit centers provide off-street locations where buses can pull out of traffic and berth while passengers transfer among the various bus routes. The acquisition of property may be required to provide for such an off-street terminal.

Depending upon what is incorporated into their design, transit centers may include various elements already mentioned, such as information kiosks and passenger waiting benches, as well as the following:

- An enclosed passenger waiting area, including seating, with appropriate climate control;
- Restroom facilities;
- Route and system information elements;
- A customer service office to sell fare media and provide information;
- Public telephones;
- Vending machines; and
- Ancillary businesses that can produce income from rental payments (e.g., newsstand, shoe repair, dry cleaners, etc.).

The current service plan would suggest one major facility at the Queen Ka'ahumanu Center with an anticipated expenditure of $750,000. As with the other capital items, the costs would vary widely depending on design features and site-specific issues. Future transit centers might be appropriate where the South and West Maui routes intersect or Upcountry when its service expands.

g. Bicycle Racks

Bicycle racks, where passengers may lock their bikes after riding to the bus stop, are another common amenity. Bicycle racks can be stand-alone units, or they can be incorporated into the design of other elements of the street furniture program. Bicycle racks that can hold two bicycles can be incorporated on the front bumper of the transit vehicles themselves. The placement of bike racks on buses allows the rider to take their bike with them so that they can utilize it at the other end of their trip. Given the topography and climate on Maui and the prevalence of bicycling, it is recommended that bike racks be incorporated on all vehicles.

Similar to the passenger waiting benches, the price of each bicycle rack may cost approximately $500, when installed. If it is assumed that about 20 stand-alone bicycle racks are required (i.e., that they are not part of a passenger waiting shelter, as described previously) then approximately $10,000 would be required in the capital program for bicycle racks. Bicycle racks should be located by bus stops in communities that have high levels of bicycle use, such as Kihei and Lahaina. The cost of vehicle bike racks is included in the vehicle costs discussed later.

h. Trash Receptacles

If a bus stop has a passenger-waiting bench, then it is common to provide a trash receptacle. Some types of trash receptacles may include space for advertising which the transit agency can sell in order to help offset the cost of maintaining the system and/or installation. Because trash receptacles are typically a low cost item and are included with a variety of other amenities, no separate cost has been identified.

If Maui County does not enter into a contract to provide and maintain the transit furniture MDOT will need to determine how to provide disposal service. Ideally the trash could be emptied by the same crews who empty other municipal trash receptacles – such as those in the parks. If this is not feasible, MDOT may want to postpone the provision of trash receptacles until there is a viable approach to maintaining them and disposing of the trash.

i. Public Communications/Information

Typically, the cost of preparing public information (i.e., schedule and maps) is a routine operating expense. However, the initial operation of the transit system mandates a one time, significant cost for this effort and the development of the system's intellectual property. Accordingly, this cost has been shown as a capital expenditure since its values will extend over many years. This program could include the following:

- Logo and graphic schemes for buses, signs, shelters, kiosks, etc.;
- Public information materials (e.g., individual route timetables, system maps, etc.);
- Electronic media (a Web site or automated trip planner);
- Real-time public information system, possibly including a trip planner.

Although the logo and graphic schemes are being developed as part of this planning effort, additional funding will be needed to generate the route timetables, system maps, and other elements listed above. For purposes of this analysis, a lump sum of $75,000 has been utilized for the development and preparation of the public information program. The costs of a more formal, ongoing marketing campaign are included in the marketing section.

2. Category Two Capital Needs

As noted previously, implementing the service plan will require expending funds for other major items like vehicles and an operating/maintenance base and their associated equipment. Initially, the service contractor could provide these items. In the longer term, it would be preferred for Maui County to own the major transit system assets and make them available to all bidders for the service or to possibly support in-house operation. These major capital items are as follows:

a. Transit Facility

The public transportation system's vehicle maintenance and administrative facility is a major capital item and requires a relatively large parcel (2-4 acres) of land zoned for industrial use. The facility would include:

- Storage for the entire fleet of transit vehicles (possibly indoor);
- Fueling facilities;
- Maintenance/vehicle repair bays (including hydraulic lifts);
- Routine inspection bays (including inspection lifts);

- Vehicle cleaning facilities (including a bus washer);
- Ancillary functional areas (e.g., tool and parts rooms, engine component rebuilding rooms, etc.); and
- Administrative offices.

While prices for such a facility would vary widely by location, land costs and specific elements of the design, it is assumed that a facility would mandate an expenditure of about six million dollars. Due to the expectation that the service operation be contracted in the short term, this cost is not included in the financial plan for the next five years.

b. Transit Vehicles

Establishing an identity for Maui's transit service, expanding service, and reducing the cost of operations will all be aided by the purchase of new transit vehicles. Maui County has at its disposal an FTA 5309 grant that could be used for the purchase of these vehicles. Due to the desire to have a readily identifiable fleet, the County should purchase nine, medium-duty cutaway vehicles to initiate the expanded transit service. This recommendation reflects the lower costs of such equipment, readily available vehicles, and existing dealership network. Should vehicles be acquired and the plan not implemented, the vehicles could be used by other agencies (e.g., MEO, Boys and Girls Clubs, Kaunoa) who comply with the applicable federal regulations for their use.

The purchase of these medium-duty vehicles is a near term, expedient solution. In the longer term, expansion and replacement vehicles should be small (i.e., 30 foot) heavy-duty transit buses. Even though these vehicles are considerably more expensive than medium-duty vehicles, the recommendation is made for the following reasons:

- Heavy-duty vehicles present a better image of the transit system;
- They tend to be more reliable;
- They are more comfortable for the passengers, and;
- They have a longer vehicle life.

Further, the newest models of heavy-duty transit buses utilize "low floor" features that allow for easier access to the vehicle. Small transit buses would be appropriate given the passenger loading requirements on Maui and the ability of small buses to more easily maneuver through various types of street configurations.

There are several options to consider when selecting the most appropriate heavy-duty transit vehicle for Maui County, including: manufacturer, floor height, number of doors, and method of propulsion. These elements are discussed in greater detail below.

c. Manufacturer

This may affect the price per vehicle depending upon each vendor's existing support network in Hawaii and on Maui, and in terms of delivery terms (i.e., transporting buses to Maui).

Research has indicated that the state's relative isolation does, in fact, create special

circumstances regarding vehicle procurement and delivery that must be addressed. To acquire transit vehicles, any large vehicles (typically 30 feet or longer) would likely be purchased directly from the manufacturer. However, smaller vehicles - such as body-on-chassis or "cutaway" vehicles - could be purchased from a dealer in Hawaii.

Shipping the transit vehicles to Maui is also an issue. The cost is approximately $25,000 to transport the bus to Maui; $20,000 is for the shipping firm (typically Matson Shipping) to transport the bus from the mainland to Oahu, while the other $5,000 is to transport the bus on the inter-island barge system to Maui.

The final issue regards the uncertainty in delivery dates. The seaports both in Hawaii and on the west coast of North America are operating close to capacity which can impact the timeliness of deliveries.

d. Floor height/number of doors

A low floor bus is easier for people with disabilities and senior citizens to utilize as well as expedites passenger boarding and alighting, but a high floor bus typically seats more passengers for the same vehicle length; a bus with two doors allows for faster passenger loading and unloading at the bus stop. The impact of low vs. high floor vehicles on seating capacity varies by manufacturer and the seating configuration. It is recommended that Maui attempt to purchase two door, low-floor vehicles in the future.

e. Method of propulsion

Traditional diesel buses are relatively easy to maintain and to purchase fuel for, but alternative propulsion systems (e.g., biodiesel, hybrid, propane, compressed natural gas, etc.) may deliver better air quality for the community. Hybrid engines can be significantly more expensive than diesel engines (typically two to three times as much) and compressed natural gas is currently not available in Maui. Propane fuel is available, but is more expensive than diesel and is a relatively unknown vehicle technology on Maui, which would make maintenance more difficult. Biodiesel, the most viable alternative fuel option for Maui, is a renewable fuel that can be used in both medium and heavy-duty diesel vehicles like trucks and buses with no engine modification. In addition, diesel fuel tanks can easily store biodiesel.

Some of these options require a more thorough examination, given the overall importance of the transit vehicles themselves to the success of the public transportation system. There are several questions that need to be answered to make a proper bus acquisition decision. These questions include:

- What size bus should be obtained?
- Should the bus be a new style low floor design or an old style standard floor?
- Should the bus have two doors or just one?

f. Vehicle Size

As was previously mentioned, the consultant team feels that the transit vehicles utilized on Maui should be small "heavy-duty" buses. A small bus should be appropriate given the passenger loading requirements on Maui. Certainly, a smaller bus in the 30-foot range with 25 or more seats could easily handle any peak loads while permitting all riders to have a seat. Therefore, based on accommodating peak load ridership, the bus size option should be focused

on smaller heavy-duty buses in the 30-foot range. There are several positive considerations for obtaining a 30 foot bus, including:

- Smaller 30-foot buses give the impression to the community and its leaders that the transit system is trying to match bus size to passenger loads. The common comment in the transit industry that "buses are always traveling around empty" would be softened somewhat if a smaller bus were used.
- Smaller 30-foot buses will be easier to park at various boarding and transfer locations and to maneuver on some streets on Maui.
- Smaller 30-foot buses are lighter and have better fuel economy than larger buses.
- Less bus storage space will be needed at the garage or storage area.

As mentioned earlier, the primary disadvantage of heavy-duty vehicles is that they are significantly more expensive than medium-duty vehicles.

g. Low Floor versus Standard Floor

Most heavy-duty bus manufacturers now supply low floor buses with a "kneeling" feature and a ramp for wheelchair accessibility. It has become a very popular design with most new bus purchases in the low floor design category. There are several positive considerations for obtaining a low floor bus, including:

- The entrance step with the bus in the kneeling position is very low. In fact, if a bus pulls right up to a curb, the passenger can walk right into the bus without taking a step up. When kneeled, the step height is about nine inches.
- The ramp feature is less complex than a wheelchair lift mechanism. It requires much less maintenance. The ramp can be deployed automatically or manually.

There are several positive considerations for obtaining a standard floor bus, including:

- The standard floor buses can be obtained in 96-inch widths, whereas the low floor buses are typically wider by two to six inches.
- The standard floor bus has one platform from the front to the rear of the bus. The low floor bus has a raised platform in the rear section that requires the passenger to climb one or two steps.
- In those instances where a low floor boards and alights a wheelchair patron without a curb or sidewalk, the incline of the ramp may be very steep. To an extent, this situation can be ameliorated with the kneeling feature.

h. Two Doors or One

In many types of buses, the rear door contains the wheelchair lift. Most bus manufacturers offer buses 30 feet in length with either one or two doors. Those with two door designs have less seats - typically, four seats less. For example, a typical 30-foot bus with one front door will have 27 to 30 seats (without a wheelchair in place) and 23 to 26 seats with two doors. However, having two doors is an attractive feature for easier egress by passengers.

It should be noted that the number of seats can vary depending on the type of seating options selected for the bus (e.g., forward facing or side facing) as well as the number of wheelchair positions. The options often vary by manufacturer as well, as shown in Table 5-7 and the catalog cuts that are included in Attachment 2.

i. Bus Acquisition Options

This section contains information on the heavy-duty transit buses that are available in the 30-foot range that could be potential candidates for purchases for service on Maui. It should be recognized that other manufacturers might be potential bidders for the Maui procurement.

(1) 30-Foot Low Floor

Table 5-7 lists information on the four United States bus manufacturers that produce 30-foot heavy-duty low floor buses. With a one-door bus, the seats vary from 27 to 31 without any wheelchairs on board. Three seats would be lost for each wheelchair. There are two wheelchair positions on each bus model. With two doors, the seats vary from 23 to 28 without any wheelchairs on board.

Widths vary from 96 inches to 102 inches. All use the Cummins engine. Only two models offer Detroit Diesel engines, the S40. The Allison transmission is offered on all models. The Gillig also offers the Voith, and ZF transmissions.

Table 5-7 Representative Heavy Duty Buses: Low Floor

Attribute	Orion (SLF 200)	Optima (Opus)	Gillig	New Flyer (D30LF)
Length	30 feet	30.5 feet	29 feet	30.5 feet
Width	96 inches	99.2inches	102 inches	102 inches
Engine	Cummins ISB Turbo	Cummins ISB Turbo	Cummins ISC of DDC S-40 E	Cummins ISL or DDC S-40
Transmission	Allison	Allison	Allison, Voith or ZF	Allison B300R
Seats				
with one door	32	27	__	31
with two doors	28	23	28	__
Wheelchair				
Positions	2	2	2	2
Seats lost	6	6	6	6

(2) 30-Foot Standard Floor

Table 5-8 also lists information on the two United States bus manufacturers that produce 30-foot heavy-duty standard floor buses. It appears that both manufacturers make only 30-foot standard buses with two doors. There are two wheelchair positions on each bus model. With two doors, one manufacturer lists 29 seats the other 30 seats. Widths vary from 96 inches to 102 inches. All use the Cummins or Detroit Diesel S-40 or S-50 engines. Both manufacturers offer the Allison, Voith, and ZF transmissions.

Attachment 2 to this report includes catalogue cuts from various manufacturers including Orion, Optima, Gillig, New Flyer, NABI, and Novabus.

Table 5-8 Representative Heavy Duty Buses: Standard Floor

Attribute	Orion (SLF 200)	Gillig
Length	30 feet	30 feet
Width	96 inches	96 or 102 inches
Engine	Cummins ISL or DS S_50	Cummins ISC or DDC S-40 of S-50
Transmission	Allison, Voith or ZF	Allison, Voith or ZF
Seats		
with one door	__	__
with two doors	30	29
Wheelchair		
Positions	2	2
Seats lost	6	6

It is assumed that the Maui County Department of Transportation would budget for the full implementation of the public transportation system proposed in year five of the service plan. For the purposes of this analysis, it was assumed that 30-foot transit buses would be required for service. Each bus would cost approximately $325,000, where $300,000 is for the vehicle itself and the remainder is for shipping costs, as was previously described. According to the service plan, 18 vehicles are needed for peak period service with an allowance of five buses as spares for a total of 23 buses. Since the procurement process for nine cutaway vehicles has been started, only 14 additional small buses would be required. Approximately $4,550,000 would be required in the capital program for buses in excess of the $810,000 that is being committed for the nine cutaway vehicles.

Two concluding points regarding transit vehicles relate to the bus appearance and their use to generate advertising funds. Similar to the shelters, it is suggested that the buses be painted with a distinctive paint scheme. In contrast, some systems permit advertising signs or full "bus wraps" as a revenue source. Because Maui's transit service is relatively new and unknown, the former approach should be pursued to aggressively develop an identity for the service.

j. Service Vehicles

It is assumed that Maui County would purchase a sedan and pick-up truck for administration and light servicing duties. With an assumed unit cost of $25,000 for a sedan and $35,000 for a pick-up truck, an expenditure of $60,000 would be required. Tow trucks and other special vehicles could rely on existing Maui County resources, vendors or the service contractor or contractors.

k. Fare Boxes

The Maui County Department of Transportation intends to acquire a simple and straightforward fare box design known as a "lock drop" fare box. This type of fare box is primarily effective at securing cash fares. However, the consultant team feels that some type of counter that can tally boardings for each category of fares should also be purchased and secured to the fare boxes. The Denominator Company is one manufacturer of ridership counters that can be used to tally boardings.[7] The vehicle operators can then more effectively track ridership by route, time of day and/or trip as well as by type of rider for the purposes of future route and system planning efforts. In the future, more sophisticated electronic registering fare boxes that can easily process pre-paid fare media may also be considered.

The prices of fare boxes can vary widely, depending upon their features and level of complexity. We have assumed 23 lock drop fare boxes, such as the Euclid M4 Fare Box and mounting stand, would be required at a unit cost of $1,000, for a total outlay of $23,000.

l. Internal Communications System

The transit system should have an effective radio and communications system for various purposes, including vehicle dispatch and public safety. The capital program includes funds for a base station, ancillary equipment and 25 mobile units. The latter would include radios for 23 buses and two service vehicles. The cost of 25 mobile radios at $1,000 per unit, a single base station ($8,000), an assumption of two antennas for coverage ($1,000 each), tower ($40,000) and repeater with housing ($25,000) would result in an expenditure of $100,000. To the extent that the existing resources of Maui County or the service contractor's system could be used, there might not be a need for a base station, tower, antenna and repeater.

At some point in the future, the system could incorporate Advanced Public Transportation features such as Automatic Vehicle Locator and real-time public information and displays. No provision has been made for these features during the first few years of the public transportation system.

3. Capital Needs Summary

Table 5-9 summarizes the basic elements of the capital needs plan.

[7] See the Denominator Company's Web site at www.denominatorcompany.com. A typical cost for a ridership counter with five categories is $125. This cost is included in $1,000 cost of the fare boxes.

Table 5-9 Capital Expenditures

Item	Amount ($)
Category One	
Bus Stop Signs	48,000
Route and Schedule Information	16,000
Information Kiosks	80,000
Passenger Waiting Benches	15,000
Passenger Waiting Shelters	200,000
Transit Center	750,000
Bicycle Racks	10,000
Public Communications/Information	75,000
Subtotal	**1,194,000**
Category Two	
Transit Facility	6,000,000*
Transit Vehicles – Cutaways	810,000
Transit Vehicles – Heavy Duty	4,550,000
Service Vehicles	60,000
Fare boxes	23,000
Communication Systems	100,000
Subtotal	11,543,000
Grand Total	**12,737,000**

* This cost is not included in the five years of this plan.

It should be recognized that expenditures could be reduced if certain elements of the plan were delayed, if Maui County facilities and resources were used, and if some capital items were provided by contractors on a lease basis. Also, capital investments would be spread out over several years and could rely on substantial federal funds to underwrite the necessary capital investment.

Included in the accompanying Attachment 2 are catalogue cuts and internet screen samples of the various capital items which were previously discussed.

CHAPTER 6: MARKETING PROGRAM

Fundamental to the success of the transit service is persistent and widespread marketing. Marketing and education includes the branding, dissemination of information on routes and schedules, as well as promotion of the service. Paramount to this is a strong, easily recognizable brand and identity. The market implementation schedule begins prior to service operation. New transit services are often plagued by low ridership initially, largely due to the fact that people are not aware of the service. New or significantly modified, transit services often require between twelve and eighteen months to establish themselves.

Before Maui's transit service can be effectively marketed, the service plan should be finalized so that routing and scheduling information can be advertised. In order to effectively market Maui's transit service, it is important to have the following supporting elements in place:

- Service identity;
- A logo and letterhead;
- Unique color scheme (painted on vehicles or applied as a bus wrap);
- A website with up to date information on the service;
- A centralized phone number with information for the public (e.g. MDOT or contractor's phone number);
- Passenger guide/brochure (maps and timetables); and
- Creation of fare media, such as monthly passes, that can be sold at convenient locations, including: government offices and supermarkets. Resellers of passes and distributors of fare media should be identified and contacted as soon as possible in order to initiate discussions that would allow for the sale of the fare media. Arrangements could also be made to distribute passes through social service agencies and programs such as Kaunoa and Ka Hale A Ke Ola.

A. Service Identity

Maui's current public transit service suffers from a lack of identity. Branding is an integral component in marketing the new Maui public transit service. Having a unique identity for the service will differentiate the new service from previous incarnations of transit service and distinguishes it from other transportation operators on the island. A system name, color scheme and logo were designed as part of this planning process to aid passengers in identifying transit vehicles and bus stops.

Throughout the community workshops of the SRTP process, ideas were generated for a new service identity. Community members were asked to brainstorm ideas for both a name and logo for Maui's public transit service. Several of the names most frequently suggested were: Maui Bus, Maui Transit, Wave Rider, Hele On, Island Transit, Maui Connection, Aloha Express, and No Ka Oi Transit. Based on input from the public, and an interest in having a name that is clearly understood as a transit system (for residents and visitors alike), the name "Maui Bus" was selected for the service. Although this is similar to Honolulu's "The Bus," the name "Maui Bus" clearly communicates that it is the transit service for Maui County.

Upon selecting the service name, the next step was to develop the brand and identity to support the name. To assist in this task, the marketing and design firm Form joined the project team. With instructions to develop a readily identifiable, yet unique brand for the Maui Bus, Form developed three design approaches for Maui Bus.

Iconic Design. The first approach focuses on the use of a readily recognizable icon to attract users to the system. Illustrated in Figure 6-1, the stylized "M," is similar to logos used by a number of transit systems across the country and world, which would allow a broad spectrum of users to quickly identify the symbol with transit service. The drawback to this approach is that it is relatively common and does not reflect the tropical nature or spirit of Maui County.

Figure 6-1 Iconic Logo

Graphic Design. The second approach uses a line treatment and the words "Maui Bus" together to define the system's logo (see Figure 6-2). The stylized "M" has multiple meanings – with the colors reflecting Maui's ocean and lush greenery and the two peaks reflecting the Island of Maui's two volcanoes. This is the simplest approach to implement as a vehicle paint scheme, and consequently the cheapest. The major drawback to this approach is that it is not as strong visually, making it harder for passengers to recognize or identify vehicles and signs from a distance.

Figure 6-2 Graphic Line Logo

Pictogram Design. The third approach uses a picture as part of the identity (see Figure 6-3). Maui County, and Hawaii as a whole, is known for its tropical flowers – particularly the plumeria, hibiscus and the Island of Maui's official flower, the lokelani rose. Rather than base the design on a specific flower, which is used prolifically throughout the state, a stylized flower was created for the logo, to make it synonymous with Maui Bus. Bold applications of the flower logo can be applied to the transit vehicles, increasing the visibility of the vehicles and the transit service in general.

Figure 6-3 Pictogram Logo

From these three preliminary designs, further refinements were made to the pictogram design and corresponding color scheme to help it better reflect the area's tropical setting. The resulting design for Maui Bus is illustrated in Figure 6-4.

Figure 6-4 Maui Bus Logo

This design, and its accompanying color scheme, can now be used to create bus stop signs, vehicle paint schemes, stationary, and ride guides for the transit system.

B. Advertising

It is critical to utilize as many venues as possible to publicize the new transit service. Several options for publicizing the service consist of public service announcements (PSAs) on local radio and television stations; newspaper advertisements; distributing materials at major resorts, shopping centers, schools, senior centers, youth centers, and state and county buildings, hospitals; and other major employment locations.

1. Direct Advertising

Utilizing the local media is a very effective way to promote new and existing transit service. A strong promotion can get a new service off to an enthusiastic start. To do this effectively, it is important to generate media attention and market the services prior to implementation. Media coverage is often the best form of promotion for a transit system because it generally reaches a larger audience than direct marketing and does not cost anything. Before implementing the new service, press releases should be sent to local newspapers, television and radio stations to generate media interest in the new service. All marketing materials should include the phone number, logo, and website address for the service.

Recommended Approach. Establish and maintain relationships with a variety of news outlets. In addition to contacting the Maui News and the Maui Weekly, it would also be beneficial to have the Honolulu Advertiser write a story on the new transit service. MDOT's existing relationship with local media has proved fruitful with excellent coverage of the transit service and public meetings. It will be important for MDOT to maintain and nurture this relationship, so that when other events arise (such as route or fare changes), there will be strong media coverage.

2. Distribution of Passenger Guides and Brochures

Dissemination of information on routes and schedules is an important component of a marketing program. In order to actively encourage residents and visitors to utilize public transit, system maps and schedules should be distributed at all major resorts and hotels, retail centers, tourist attractions, senior centers, youth centers, health care centers, and other major employment locations.

Recommended Approach. Work with the following organizations to market the service and request assistance from the Maui Visitors Bureau in publicizing the new service, perhaps through an editorial article.

- Maui Economic Opportunity (MEO);
- Kaiser Permanente;
- Ka Lima O Maui;
- County departments;
- The Boys and Girls Club;
- Expeditions; and
- Kaunoa's Senior Centers.

3. Web site

MDOT currently has a Web site that provides general information regarding transit services on the island. Improving upon the current Web site can be a relatively inexpensive way to distribute information to current and potential customers. By making transit information available 24 hours a day, a Web site can eliminate time spent waiting for customer service and free up staff, who may be able to provide other services. Transit sites have proven to be effective for agencies to spur ridership by making bus services easier to use and improving transit agencies' image in the community.

The following is a list of information that should be included on a transit Web site:

- Schedules and route maps;
- Detailed fare information, including passes, locations to pick up passes, and transfer policies;
- List of popular destinations served by transit;
- Contact phone numbers and addresses;
- Links to information on other transit providers (including MEO, taxi services, ferry services, tour operators, etc.);
- Services for seniors and people with disabilities;
- Bus riding tips and instructions; and
- News and event announcements.

The above list is not meant to be exhaustive, but focuses on key content areas aimed at improving overall customer service. The following sites are good examples of transit Web sites: http://www.wheelsbus.com (Livermore/Amador Valley, CA), http://www.trimet.org (Portland, OR), http://www.transit.metrokc.gov (Kings County, WA), and http://omnitrans.org (San Bernardino Valley, CA).

Transit Web sites should be welcoming, attractive, and easily navigated. Key elements of a quality Web site include: the ability to easily locate and access information, clarity of available content and options, and consistency of design elements on all pages. Equally important to posting the information initially is maintaining the information so that it is timely and relevant to the public. A good Web development agency can integrate tools into the functionality of the Web site, allowing non-technical personnel to update the Web site independently.

Recommended Approach. Create a Web site for the Maui transit service which provides easily accessible information, this could be incorporated into the County's Web site although a direct link from the County home page will be important. Even if other Web sites provide transit information MDOT should maintain responsibility for updating and maintaining the site content to ensure it remains current.

Due to the sheer number of transportation providers and alternatives in the County, residents and visitors would also benefit from a County transportation Web site that describes all of the available transportation options and provides contact information or a Web site link. This site could be similar to the content on the transportation information on the bottom of the "Travel Tips" page of the Maui Visitors Bureau Web site – but linking it to MDOT would make it more accessible to residents.

4. Special Events

Community events can demonstrate the role of a transit agency has within the fabric of a community. The community gains a sense of confidence in its local government when a public agency shows a commitment to local events. It is also important to forge good relations with other community organizations. Maui County has already held one such event, the Maui Public Transit Talent Show, in an effort to raise awareness of the service and promote community involvement. It is recommended that the DOT take advantage of future opportunities to sponsor important local events, participate in community activities such as setting up a booth, or holding events similar to the talent show.

Recommended Approach. During the first month of new service the DOT could host a "Ride the Maui Bus Week," similar to the American Public Transportation Association's annual event "Try Transit

Week." This event could serve as a kick-off for the new service. Planned activities would be educational and promote the transit service. The activities would help identify the benefits of using public transportation to current and potential riders and showcase any service changes. An example of events the DOT could host during the week include educational presentations at schools, civic organizations, major employment sites; distribution of free transit passes at key visitor and shopping locations; and a community "ribbon cutting" ceremony to introduce the new bus design.

5. Travel Training

Free rider training programs can provide instructions for using the service, can serve to promote the new system, and enhance the overall image of public transit in the community. Anyone interested in trying transit would be eligible to receive travel training. Each training session would be tailored to meet the needs of the passenger and would teach the rider how to:

- Plan their trips;
- Ride specific routes;
- Read and understand maps and schedules;
- Get to and from the bus stops;
- Recognize bus numbers, routes, and landmarks;
- Pay fares and purchase passes;
- Get on and off the bus safely;
- Locate and transfer to other routes; and
- Get service information.

Recommended Approach. The MDOT should work with interested agencies and organizations to incorporate travel training into existing programs such as those at Kaunoa's centers for seniors, the life skills program at Ka Hale A Ke Ola, and the Boys and Girls Clubs. MDOT could utilize existing staff for training sessions or train volunteers to assist new and existing riders in navigating the transit system. These "travel ambassadors" are generally transit riders themselves, many with disabilities, who would bring schedules and information about the bus to the individual and help plan their trip. They would accompany the individual on the bus trip, demonstrating features of the bus and repeat the process until the rider feels comfortable their ability to ride the bus alone.

C. Program Evaluation

A final component of the marketing program should be to provide for a self-evaluation of the marketing program. This evaluation would analyze the goals, objectives, and performance of the marketing activities used to promote the new service. A written onboard survey is one method that could be used to evaluate the needs of customers, as well as to understand how well marketing initiatives are working with current customers. Furthermore, in order to understand and evaluate the perceptions of the entire community and the knowledge of non-users regarding the new transit service, a more broadly based survey (conducted via the telephone) is highly recommended. Other survey methods include internet surveys, mail-back surveys, and intercept surveys however; they tend to be less representative of the general population. Any ridership surveys should be conducted regularly to understand the effectiveness of various marketing efforts to fine-tune the provision of the intercommunity transit service. It would be appropriate to conduct one survey after one year to track initial performance and a second after three years, when the service is effectively established.

Table 6-1 presents the marketing action plan, which prioritizes the Year 1 marketing recommendations from this section.

Table 6-1 Marketing Action Plan: Year 1

Marketing Recommendation	Estimated Cost	Timeline
Design and production of passenger guides and brochures, including schedule and route info	$30,000	1 ½ months prior to service implementation
General promotion and advertising (print, radio, television, direct mail)	$45,000	Begin 1 month prior to implementation of service changes
Work with media to get coverage of service	Staff time	Ongoing
Refine Web site	To be included in capital costs	Site should be operational prior to service implementation
Produce promotional materials such as buttons, shirts, mugs, magnets, etc.	$5,000	Ongoing
Offer service promotions, such as fare free days	Lost fare box revenue	First three months of service
Evaluate marketing program	Staff time	One year after initial service changes

Marketing efforts in future years should be focused on advertising service and schedule changes, performing on-board surveys, conducting community outreach, and providing travel training. The following table provides a summary of marketing recommendations for Years 2-5.

Table 6-2 Marketing Action Plan: Years 2 - 5

Marketing Recommendation	Year 2	Year 3	Year 4	Year 5
Promote service through advertising (print, radio, television)	$30,000	$40,000	$30,000	$40,000
Produce passenger guides and brochures, including updated schedule and route info	$5,000	$10,000	$5,000	$5,000
Maintain Web site	Staff time	Staff time	Staff time	Staff time
Conduct community outreach activities	Staff time	Staff time	Staff time	Staff time
Perform on-board surveys and evaluate marketing program	$15,000 and staff time		$15,000 and staff time	
Produce promotional materials such as buttons, shirts, mugs, magnets, etc.				$5,000
Provide travel training	Staff time	Staff time	Staff time	Staff time
Offer service promotions, such as fare free days	Lost revenue	Lost revenue	Lost revenue	Lost revenue
Annual Total	$60,000	$50,000	$50,000	$50,000

CHAPTER 7: FINANCIAL PLAN

The service implementation plan represents a significant expansion over the existing transit services in the County of Maui. As such, the implementation plan presents challenges for the County to find the necessary resources to operate the service. This section presents a financial plan to implement the recommended service plan. The financial plan includes a review of potential funding sources, operating and capital cost estimates, and revenue estimates. In addition, a recommended fare structure for the service plan is presented.

A. Funding Sources

The funding sources available for public transit in the County consist of local, state and federal funds. Each of these sources is discussed below. Although these funding sources exist, many require the County to apply for the funding and do not guarantee it will receive maximum available funding.

An important point to keep in mind is that once the transit service receives *any* federal funds, the recipient and subrecipients of the funds must abide by a number of federal requirements. These requirements are detailed in a separate section.

1. Local Funds

The County's local funds that are available for public transit consist of general fund revenues and gas tax revenues. The County Council appropriates general fund revenues annually. In FY 2004, the Department of Transportation received $1.8 million in general fund revenues. These funds were spent as shown in Table 7-1.

Table 7-1 FY 2004 Maui DOT General Fund Revenues

Expense Type	Amount
Salaries & Wages	$189,732
Operations	$1,517,491
Equipment	$100,000
Total	$1,807,223

Source: FY 2005 Budget, County of Maui

In addition to general funds, the County also levies a five-cent per gallon tax on gasoline for public transportation. This tax is expected to raise $4 million in funds for FY 2005. However, the use of these funds are not dedicated to a specific program, but are appropriated at the discretion of the County Council.

2. State Funds

State transportation funds are awarded on a discretionary basis. The sources of these funds include the following:

- Highway fuel taxes;
- Vehicle registration and licensing fees;

- Vehicle weight tax; and
- Motor vehicle rental and tour vehicle surcharge taxes.

Although these funds are generally used as part of the local matching funds for highway projects that are identified in the Statewide Transportation Improvement Program (STIP), typically local match for transit projects comes almost exclusively from the county or municipal level.

In addition to the aforementioned sources, the State also has a Transit Capital Development Fund (HRS Section 51D). This fund was established to provide financial assistance to the counties for capital and construction costs for mass transit projects. The use of the funds requires authorization by the governor and the counties are required to match all funding requests dollar for dollar with any revenues other than federal government funds.

3. Federal Funds

There are three federal grant programs that are available to the County to provide funding for public transit. These grant programs are administered by the Federal Transit Administration (FTA). These programs include the Non-urbanized Formula Program (Section 5311), Transportation for the Elderly and Persons with Disabilities Program (Section 5310) and the Transit Capital Investment Program (Section 5309). Each of these programs has certain requirements, including local matching funds. For the purposes of the federal funds discussion, local funds refer to both state and Maui County funding.

- Section 5311 - This program provides formula funding to states to support public transit in non-urbanized areas.[8] These funds may be used for capital and operating expenses. Local match requirements are 20 percent for capital expenditures, 50 percent for operating expenditures, and 10 percent for projects that meet the requirements of ADA, the Clean Air Act, or bicycle access. Additional funds are available under the Rural Transit Assistance Program (RTAP), Section 5311(b)(2), for the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in non-urbanized areas. There is no local match requirement for RTAP funds.

- Section 5310 - This program provides formula funding to States for the purpose of assisting private nonprofit groups in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. There is a 20 percent local match requirement for use of these funds.

- Section 5309 - The transit capital investment program provides capital assistance for new and replacement buses and facilities, modernization of existing rail systems, and new fixed guideway systems. Eligible recipients of these funds generally are required to provide 20 percent local matching funds. These funds are allocated on a discretionary basis, usually as an earmark by the U.S. Congress, and can be very competitive.

[8] The U.S. Census Bureau classifies as urban all territory, population, and housing units located within urbanized areas (UAs) and urban clusters (UCs). It delineates UA and UC boundaries to encompass densely settled territory, which generally consists of:
• A cluster of one or more block groups or census blocks each of which has a population density of at least 1,000 people per square mile at the time, and
• Surrounding block groups and census blocks each of which has a population density of at least 500 people per square mile at the time, and
• Less densely settled blocks that form enclaves or indentations, or are used to connect discontiguous areas with qualifying densities. (www.census.gov, *Census 2000 Geographic Terms and Concepts*)

In FY 2004, the State of Hawaii was awarded $56.2 million in grant funds from the FTA. Of these, approximately $1.7 million was programmed for transportation projects in the County of Maui. A summary of the State's and County's FY 2004 FTA funding is presented in Table 7-2.

Table 7-2 Summary of FY 2004 FTA Funding

Funding Source	State of Hawaii	County of Maui
5303 Metropolitan Planning Program	$245,825	- -
5307 Urbanized Area Formula Program	$26,386,658	- -
5309 Capital Investment Prog. – Bus and Facilities	$16,698,416	$785,800
5309 Capital Investment Prog. – New Starts	$10,133,105	- -
5309 Capital Investment Prog. – Fixed Guideway	$1,118,490	- -
5310 Elderly and Persons with Disabilities	$474,925	- -
5311 Non-urbanized Area Formula Program	$999,450	$284,800
5311(b)(2) Rural Transit Assistance Program	$72,812	- -
5313 State Planning and Research Grant	$66,295	- -
3037 Job Access Reverse Commute*	N/A	$100,000
Total	$56,195,976	$1,170,600

* MEO received $100,000 in 3037 funding directly from the Community Transportation Association of America (CTAA), it was not allocated by the County of Maui.
Sources: FTA FY2004 Funding Summary for the State of Hawaii, Hawaii DOT FY 2004 thru FY 2006 STIP

4. Applicability of Federal Requirements

As a condition of receiving federal grant funds, recipients and sub-recipients of federal funding must agree to meet certain requirements. Generally, the requirements are identified in an agreement, which the recipient enters into with the federal government before the grant funds are awarded. If the recipient passes the funding through to a subrecipient, the recipient is obligated to pass through the grant requirements as well. In other words, the subrecipient must also agree to meet the requirements. The applicability of specific requirements depends upon the type of funding received, the purpose for which the funding is used and the type of organization receiving the funds. The requirements generally are identified in Public Laws, the U.S. Code, the Code of Federal Regulations, and federal circulars.

The FTA awards grant funds to states, local governments, public agencies and non-profit organizations through a variety of programs. In general, the applicability of FTA's requirements depends on the program under which funds were received and the size of the recipient's area (i.e., large urban, small urban and rural). Maui County is a considered a rural area according to census definitions.

The following table presents a general overview of the applicability of federal requirements in 22 areas. This table does not include the entire breadth of federal requirements, but is merely a snapshot of requirements for which the FTA routinely reviews and tracks compliance.

When federal funds are passed through to a subrecipient, the FTA will look to the direct recipient of the funds to ensure that requirements are being met by all lower-tier participants (i.e., subrecipients, contractors and sub-contractors). Also, it should be noted that certain requirements apply when agencies use federally funded equipment and facilities. For example, a municipality that provides federally funded vehicles to a third party (e.g., contractor or non-profit organization) to operate transportation services must ensure that the third party meets FTA requirements, which include, but are not limited to, Satisfactory Continuing Control, Maintenance, Charter Bus, School Bus, and Drug and Alcohol Testing.

Table 7-3 Applicability of FTA Requirements to Rural Areas

Area/Regulation	Description	Applicability Rural
1. **Legal** Certification and Assurances	Grantees must be eligible and authorized to receive and dispense funds. The authority to take necessary actions on the grantee's behalf must be properly delegated and executed.	X
2. **Financial** OMB C A-133 49 CFR Part 18, Common Rule	Grantees must demonstrate ability to match and manage FTA grant funds and annually conduct an organization-wide audit in accordance with OMB C A-133.	X
3. **Technical** OMB C A-87 49 CFR Part 18, Common Rule	Grantees must have the ability to implement and manage grants properly.	(State only)
4. **Satisfactory Continuing Control** 49 CFR Part 18, Common Rule	Grantees must maintain control over FTA funded facilities and equipment.	X
5. **Maintenance** 49 CFR Part 18, Common Rule 49 CFR Part 37, Acquisition of Accessible Vehicles	Grantees must keep federally funded equipment and facilities in good operating order.	X
6. **Procurement** 49 CFR Part 18, Common Rule FTA C 4220.1E 49 CFR Part 665, Bus Testing	Grantees will have procurement procedures that reflect applicable state and local law that ensures competitive procurements, conform to Federal law including FTA Circular 4220.1E. Grantees will maintain a contract administration system to ensure contractor performance.	X
7. **Disadvantaged Business Enterprise** 49 CFR Part 26, DBE	Grantees must create a level playing field on which DBEs can compete fairly for federally funded contracts.	X
8. **Buy America** 49 CFR Part 661, Buy America 49 CFR Part 663, Pre-Award/Post-Delivery	Grantees must meet Buy America requirements for procurements of steel, iron or manufactured goods. Special requirements apply to procurements of rolling stock.	X
9. **Suspension/Debarment** 49 CFR Part 29, Government-wide Debarment/Suspension	Grantees are required to ensure that none of the grantee's principals, subrecipients, and third-party contractors and subcontractors are debarred, suspended, ineligible, or voluntarily excluded from participation in federally assisted transactions.	X
10. **Lobbying** 49 CFR Part 20, Restrictions on Lobbying	Grantees and certain contractors/subcontractors must certify compliance with the Restrictions on Lobbying before receiving federal funds.	X
11. **Planning/POP** 49 USC Chapter 53, Federal Transit Act 23 CFR Part 450, Joint Planning Regulations	Grantees must participate in the transportation planning process in compliance with FTA requirements. Grantees must comply with public participation requirements.	(State only)

Area/Regulation	Description	Applicability Rural
12. Title VI FTA C 4702.1, Nondiscrimination in the Provision of Service	Transit services and related benefits must be distributed in an equitable manner with no discrimination on the grounds of race, color or national origin.	X
13. Public Comment for Fare and Service Changes FTC C 9030.1C, Chapter V, 5o	Grantees must have a local process to solicit and consider public comments before raising fares or carrying out major reductions in service.	N/A
14. Half Fare 49 USC Chapter 53, Section 5307 (d)(1)(D)	Fares charged elderly persons, persons with disabilities, and individuals with a Medicare card during non-peak hours must not exceed one-half the rate charged to others during peak hours.	N/A
15. ADA 49 CFR Part 37, Acquisition of Accessible Vehicles 49 CFR Part 38, Accessibility Standards	Grantees must not discriminate against persons with disabilities in the provision of transit service.	X
16. Charter Bus 49 CFR Part 604, Charter Bus Protections	Grantees are prohibited from operating charter service unless a qualified exception applies.	X
17. School Bus 49 CFR Part 605, School Bus Protections	Grantees are prohibited from operating exclusive school bus service.	X
18. National Transit Database 49 USC Chapter 53, Federal Transit Act 49 CFR Part 630, Uniform System of Accounts	Grantees must collect, record and report required data annually according to FTA's procedures.	N/A
19. Security and Safety 49 USC Chapter 53, Federal Transit Act 49 CFR Part 659, Rail Fixed Guideway Safety Oversight	Grantees must certify that one percent of Urbanized Area Formula Funds are spent on security projects. FTA can investigate operations for safety conditions. FTA encourages safety and security awareness.	N/A
20. Drug-Free Workplace 49 CFR Part 32, Drug Free Workplace	Grantees must maintain a drug-free workplace and establish an on-going drug-free awareness program.	(State only)
21. Drug and Alcohol Program 49 CFR Part 40, Drug and Alcohol Testing Programs 49 CFR Part 655, Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations	Drug and Alcohol testing program must be in place for all grantees with safety sensitive employees.	X
22. Equal Employment Opportunity FTA C 4704.1	Grantees must assure that no persons be subject to discrimination in employment.	X

Explanatory notes for sub-recipients:

Legal. Sub-recipients submit certifications and assurances to the state. There is no Federal requirement for an attorney's signature. Some states require it.

Satisfactory Continuing Control & Maintenance. Sub-recipients follow state equipment management requirements. States set useful life standards for Section 5310 and 5311 vehicles. There are no spare ratio requirements. There is no Federal requirement for a written maintenance plan.

Procurement. Sub-recipients follow state and Federal requirements. For public-entity sub-recipients, only five Federal requirements apply:

- Provide for free and open competition.
- Include all applicable federal clauses, except the following:
  Federal Changes;
  Bonding Requirements;
  Termination Provisions; and
  Resolution of Disputes.
- Cannot use geographic preferences.
- Obtain prior state approval for contracts > 5 years.
- Follow the Brooks Act unless the state has adopted a statute governing the procurement of architecture and engineering (A&E) services.

Title VI. Sub-recipients submit the general reporting requirements information to the state.

Charter Bus. There are seven exceptions, two of which pertain to rural operators only.

Exception 3. Allows rural operators to provide incidental charter service directly to the customer if the charter service, offered by willing and able operators, creates a financial hardship due to minimum duration requirements or distance between charter origin and operator location. The subrecipient must petition the FTA regional administrator for approval. The subrecipient must provide notice of its request for an exception to all private operators determined to be willing and able with at least 30 days to respond.

Exception 6. Allows rural operators to provide incidental charter service directly to a government entity or private, non-profit organization after obtaining a certification from the entity or organization that states that:

- the organization is a government entity or organization exempt from taxation;
- more than 50 percent of the passengers on the charter trip will be elderly;
- the charter trip is consistent with the function and purpose of the entity or organization; and
- the charter trip will be organized and operated in accordance with Title VI of the Civil Rights Act and Section 5332 of the Federal Transit Act.

Also, Section 5311 requires coordinated service. Therefore, contracts for service with human service agencies are not considered charter service.

School Bus. FTA considers Head Start service as human service transportation, not school bus transportation. Operators that provide demand-responsive service can provide subscription school service as the service is open to the general public on a space-available basis.

B. Capital Costs

The capital costs for the Maui public transportation system were identified in the capital investment program of Chapter 5. The program determined that $6.7 million in capital costs were needed to fully implement the service plan. The capital needs were categorized as follows:

- Category One Capital Needs – these items included passenger amenities (e.g., bus shelters, benches, and bike racks), public information infrastructure and signage. The total costs for these items were $1.19 million.

- Category Two Capital Needs – these items included vehicles, fixed facilities, fare boxes and communications systems. The total costs for these items were $5.5 million.

Table 7-4 shows how these capital items could be phased in over the five-year implementation period. Some items are phased in evenly over the five-year period, while other items that will be needed immediately (e.g., passenger amenities) are phased in quickly. Large projects such as the transit center are delayed for later implementation since more time is needed to begin preliminary activities, such as site selection, engineering and design work. As discussed earlier, the construction of a transit facility is expected to take place beyond the five years of the plan; therefore its cost is not included.

The capital funding breakdown shown in Table 7-4, illustrates a possible breakdown if Maui County is successful in garnering full federal funding for its capital projects and in receiving part of the local match from the State. Neither of these situations is guaranteed, but it is the preferred approach to maximize the leverage of local funds. As such, for the purposes of this plan, it is assumed that the County will secure federal and state funding to meet its capital budget.

Table 7-4 Financial Plan – Capital Costs

	Quantity	Unit Cost	Total Cost	Implementation → Year 1	Year 2	Year 3	Year 4	Year 5
CATEGORY ONE:								
Bus Stop Signs	400	$ 120	$ 48,000	$ 19,200	$ 19,200	$ 9,600	$ -	$ -
Route and Schedule Information	40	$ 400	$ 16,000	$ 8,000	$ 8,000	$ -	$ -	$ -
Information Kiosks	10	$ 8,000	$ 80,000	$ 40,000	$ 40,000	$ -	$ -	$ -
Passenger Waiting Benches	30	$ 500	$ 15,000	$ 7,500	$ 7,500	$ -	$ -	$ -
Passenger Waiting Shelters	20	$ 10,000	$ 200,000	$ 100,000	$ 100,000	$ -	$ -	$ -
Transit Center	1	$ 750,000	$ 750,000	$ -	$ -	$ 250,000	$ 500,000	$ -
Bicycle Racks	20	$ 500	$ 10,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000
Public Communications/Information	1	$ 75,000	$ 75,000	$ 37,500	$ -	$ 37,500	$ -	$ -
Subtotal			$ 1,194,000	$ 214,200	$ 176,700	$ 299,100	$ 502,000	$ 2,000
CATEGORY TWO:								
Transit Facility *(a)*	1	$ 6,000,000	$ -	$ -	$ -	$ -	$ -	$ -
Transit Vehicles - Cutaways	9	$ 90,000	$ 810,000	$ 810,000	$ -	$ -	$ -	$ -
Transit Vehicles - Heavy Duty	14	$ 325,000	$ 4,550,000	$ -	$ 1,137,500	$ 1,137,500	$ 1,137,500	$ 1,137,500
Service Vehicles	2	$ 30,000	$ 60,000	$ 60,000	$ -	$ -	$ -	$ -
Fareboxes	23	$ 1,000	$ 23,000	$ 4,000	$ 4,000	$ 4,000	$ 5,000	$ 6,000
Communication Systems			$ 100,000	$ 81,000	$ 4,000	$ 4,000	$ 5,000	$ 6,000
• Mobile Radios	25	$ 1,000	$ 25,000	$ 6,000	$ 4,000	$ 4,000	$ 5,000	$ 6,000
• Base Station	1	$ 8,000	$ 8,000	$ 8,000	$ -	$ -	$ -	$ -
• Antennas	2	$ 1,000	$ 2,000	$ 2,000	$ -	$ -	$ -	$ -
• Repeater	1	$ 25,000	$ 25,000	$ 25,000	$ -	$ -	$ -	$ -
• Tower	1	$ 40,000	$ 40,000	$ 40,000	$ -	$ -	$ -	$ -
Subtotal			$ 5,543,000	$ 955,000	$ 1,145,500	$ 1,145,500	$ 1,147,500	$ 1,149,500
TOTAL			$ 6,737,000	$ 1,169,200	$ 1,322,200	$ 1,444,600	$ 1,649,500	$ 1,151,500
CAPITAL FUNDING:								
Federal (80%)			$ 5,389,600	$ 935,360	$ 1,057,760	$ 1,155,680	$ 1,319,600	$ 921,200
State Match (10%)			$ 673,700	$ 116,920	$ 132,220	$ 144,460	$ 164,950	$ 115,150
Local Match (10%)			$ 673,700	$ 116,920	$ 132,220	$ 144,460	$ 164,950	$ 115,150
TOTAL			$ 6,737,000	$ 1,169,200	$ 1,322,200	$ 1,444,600	$ 1,649,500	$ 1,151,500

(a) Implemented over three years, after Year 5.

C. Operating Costs

The operating costs for the service plan were developed using a number of assumptions. These are summarized in Table 7-5.

Table 7-5 Cost Assumptions

Category	Unit Factors	Notes
Administrative Costs	$18,973 per peak vehicle	50% of FY 2004 administrative cost per peak vehicle
Fixed-Route Operating Costs	$47 per hour	Current contracted rate escalated by 5%
ADA Operating Cost	$20 per trip	Hourly rate of $40 and productivity of 2 passengers/hour
Inflation	5.0% per year	Conservative estimate

Operating costs for the five-year implementation period were developed using these assumptions. The operating costs are summarized in Table 7-6.

As shown, the operating costs are disaggregated into five categories. These are: administrative costs, fixed-route transportation costs, ADA transportation costs, marketing and promotion, and professional services. Overall, operating costs range from $3.1 million in Year 1 of the implementation to $7.3 million in Year 5.

- Administrative Costs – these costs are calculated on the basis of $18,973 per peak vehicle, which is escalated at a rate of five percent per year through the remainder of the implementation period.

- Fixed-Route Transportation Costs – these costs are calculated on the basis of $47.25 per vehicle hour, which is escalated at a rate of five percent per year during the implementation period.

- ADA Transportation Costs – these costs are calculated on the basis of $20 per trip, which is escalated at a rate of five percent per year during the implementation period. ADA costs are based on ADA ridership needed to complement a full fixed-route service, with no route deviation.

- Marketing and Promotion Costs – these costs are assumed to be higher during the initial implementation in order for the County to establish a "brand identity" for the transit service. Costs are reduced in later years as the system matures.

- Professional Services – these costs are added for services such as Web site development, planning studies, onboard surveys, fare studies that the County might want to undertake as each year's budget might permit.

Table 7-6 Summary of Operating Costs

	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING STATISTICS:					
Vehicle Hours	47,815	47,815	73,730	73,730	95,083
Peak Vehicles	9	9	13	13	18
Fixed-Route Unlinked Passengers	272,546	272,546	420,261	420,261	541,970
ADA Unlinked Passengers	28,098	28,098	43,327	43,327	55,874
OPERATING COSTS:					
Administrative Costs	$ 170,759	$ 179,297	$ 271,933	$ 285,530	$ 415,117
Fixed-Route Transportation Costs	$ 2,259,259	$ 2,372,222	$ 3,840,826	$ 4,032,867	$ 5,460,842
ADA Transportation Costs	$ 561,960	$ 590,058	$ 955,353	$ 1,003,121	$ 1,358,310
Marketing & Promotion	$ 80,000	$ 60,000	$ 50,000	$ 50,000	$ 50,000
Professional Services	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000
Total	$ 3,111,978	$ 3,241,576	$ 5,158,113	$ 5,411,519	$ 7,324,269

Notes:

Vehicle hours and peak vehicles are from the recommended service plan.

Fixed-route ridership is based on a passenger productivity of 5.7 passengers per hour (1st Qtr., FY 2005 Roberts and MEO ridership).

ADA ridership in Year 1 is based on the complementary paratransit service plan and is increased as a function of fixed-route ridership in Years 2 through 5.

D. System Generated Revenue

System generated revenue generally includes passenger fare revenue, advertising revenue, rental income, and revenue contracts. In the case of MDOT, system generated revenue will consist mainly of passenger fares. Although there is future potential for advertising revenue, it has not been included in this plan due to local restrictions on signage and advertising that would preclude DOT's use of public assets and facilities for advertising purposes. Were the County to enter into a contract for the provision of street furniture in exchange for advertising, it could potentially reduce the cost of the capital program by over $1 million and provide funding (from a share of advertising revenue) to offset other costs.

Passenger fare revenue is essentially a function of ridership and an average fare. In order to estimate passenger fare revenue, historic average fares were used as factors and applied to the operating statistics for the recommended service plan. The unit factor assumptions are shown in Table 7-7.

Table 7-7 Revenue Assumptions

Category	Unit Factors	Notes
Fixed-Route Average Fare	$1.56 per passenger	Based on September 2004 average fares for Route A, B, and C
ADA Average Fare	$3.00 per passenger	Twice the fixed route average fare

The revenue estimates presented in this section are not calculated on the basis of the proposed fare structure. Due to the emergent nature of the transit service and limited operating data, it is unrealistic to generate a full fare analysis that would calculate revenue based on proposed fare market segments (e.g., cash fare, day pass, and monthly pass). As such, the passenger fare revenue estimates are based on system-wide average fares.

The system generated revenue data are presented in Table 7-8. As shown, revenues increase from $509,465 in Year 1 to more than $1.0 million in Year 5. However, since the revenue estimate does not assume an increase in average fare over the implementation period, the recovery ratio decreases each year from 16.4 percent in Year 1 to 13.8 percent in Year 5. Since the costs increase at a greater rate than revenues, the estimated deficit for operation increases from $2.6 million in Year 1 to $6.3 million in Year 5. As such, the transit operation will need to be subsidized with funding from various sources. The County will need to pursue additional funding (federal, state and local) in order to meet its subsidy requirement. A breakdown of a possible funding scenario is presented in Table 7-9.

Table 7-8 Summary of System Generated Revenue

	Year 1	Year 2	Year 3	Year 4	Year 5
OPERATING STATISTICS:					
Vehicle Hours	47,815	47,815	73,730	73,730	95,083
Peak Vehicles	9	9	13	13	18
Fixed-Route Unlinked Passengers	272,546	272,546	420,261	420,261	541,970
ADA Unlinked Passengers	28,098	28,098	43,327	43,327	55,874
GENERATED REVENUE:					
Fixed-Route Fares	$ 425,171	$ 425,171	$ 655,607	$ 655,607	$ 845,474
ADA Paratransit Fares	$ 84,294	$ 84,294	$ 129,980	$ 129,980	$ 167,623
Total	$ 509,465	$ 509,465	$ 785,587	$ 785,587	$ 1,013,096
OPERATING COSTS:	$ 3,111,978	$ 3,241,576	$ 5,158,113	$ 5,411,519	$ 7,324,269
RECOVERY RATIO:	16.4%	15.7%	15.2%	14.5%	13.8%
ESTIMATED DEFICIT:	$ 2,602,513	$ 2,732,111	$ 4,372,526	$ 4,625,931	$ 6,311,173

Notes: Vehicle hours and peak vehicles are from the recommended service plan. Fixed-route ridership is based on a passenger productivity of 5.7 passengers per hour (1st Qtr., FY 2005 Roberts and MEO ridership). ADA ridership in Year 1 is based on the ADA Service Plan and is increased as a function of fixed-route ridership in Years 2 through 5.

Table 7-9 Operating Funding Scenario

	Year 1	Year 2	Year 3	Year 4	Year 5
SUBSIDY CALCULATION					
Operating Costs (a)	$ 3,111,978	$ 3,241,576	$ 5,158,113	$ 5,411,519	$ 7,324,269
Fare Revenue (b)	$ 509,465	$ 509,465	$ 785,587	$ 785,587	$ 1,013,096
Subsidy Requirement (a - b)	$ 2,602,513	$ 2,732,111	$ 4,372,526	$ 4,625,931	$ 6,311,173
OPERATING FUNDS					
Federal Operating Assistance	$ 310,000	$ 319,300	$ 328,879	$ 338,745	$ 348,908
Local Share	$ 2,292,513	$ 2,412,811	$ 4,043,647	$ 4,287,186	$ 5,962,265
TOTAL	$ 2,602,513	$ 2,732,111	$ 4,372,526	$ 4,625,931	$ 6,311,173
Net Deficit	$ -	$ -	$ -	$ -	$ -

Notes: This exhibit demonstrates the level of subsidy that Maui County will need to obtain in order to fully fund the operating budget for the proposed five-year transit program. Although FTA 5311 funds can provide up to 50% of operating funds, Hawaii's current allocation (based on a funding formula) is too small to cover 50% of the Maui Bus' operating costs. As a result, a larger share of local funding is needed to fund the service.

E. Fare Structure

The fare structure for the proposed service plan attempts to conserve as much of the existing fare structure as possible, while at the same time developing a simple zone structure that can be modified in the future as needed. The purpose of this recommendation is to provide passengers with a fare structure that is familiar and to introduce new fare elements slowly in order to maintain the system-wide average fare at approximately $1.50 per trip.

1. Proposed Fare Structure

The proposed fare structure takes into consideration the two types of services – local (loop and villager), and regional (islander). All local routes have a single fare of $1.00 with free transfers between them. Regional services have a single fare of $2.00 with no transfers. The proposed fare structure is summarized in Table 7-10. Individual fare tables for the base adult fare on each route are presented in the appendix.

Table 7-10 Proposed Fare Structure

Category	Adult	Reduced Fare	Description
Local Fare	$1.00	- -	for travel on a loop or villager route
Regional Fare	$2.00	- -	for travel on an islander route
Day Pass			
• Local	$5.00	- -	unlimited travel on loop and villager routes
• Regional	$8.00	- -	unlimited travel on all routes
10-Trip Ticket Book			
• Local	$9.00	- -	10 local trips
• Regional	$18.00	- -	10 regional trips
Monthly Pass			
• Local	$25.00	$15.00	unlimited travel w/in one zone
• Regional	$45.00	$30.00	unlimited travel between multiple zones

Fare Policies:

- Transfers between local routes. Valid for 1 hour.
- Reduced fares available to senior citizens, students, persons with disabilities and Medicare card holders. Must present valid proof of eligibility: Photo I.D., Maui County Reduced Fare I.D., or Medicare Card.
- Senior citizen is defined as persons 65 years and older.
- Student fares available to children over 5 years, but less than 18 years old.
- Children 5 years and younger ride free of charge when accompanied by a fare-paying adult.

This fare structure is intended to be a starting point for the County to get the transit service up and running. As the system ages and service expands, the County will need to modify the fare structure in order to meet its revenue targets and reflect the increased service levels. It is generally good policy to program regular fare increases for fare revenue to keep pace with inflation. Fare increases for the five years of the plan are proposed in Table 7-11, below. From day one the County will need to ensure that detailed and accurate ridership, fare revenue, pass and ticket book sales data are maintained in order to conduct in-depth fare analyses in the future and to justify fare changes.

Table 7-11 Proposed Fare Increases

Category	Year 1		Year 3		Year 5	
	Adult	Reduced Fare	Adult	Reduced Fare	Adult	Reduced Fare
Local Fare	$1.00		$1.10		$1.25	
Regional Fare	$2.00		$2.25		$2.50	
Day Pass						
• Local	$5.00		$5.50		$6.25	
• Regional	$8.00		$9.00		$10.00	
10-Trip Ticket Book						
• Local	$9.00		$10.00		$11.00	
• Regional	$18.00		$20.00		$22.00	
Monthly Pass						
• Local	$25.00	$15.00	$27.00	$16.00	$30.00	$17.00
• Regional	$45.00	$30.00	$50.00	$33.00	$50.00	$36.00
Fare Policies: • Transfers between local routes. Valid for 1 hour. • Reduced fares available to senior citizens, students, persons with disabilities and Medicare card holders. Must present valid proof of eligibility: Photo I.D., Maui County Reduced Fare I.D., or Medicare Card. • Senior citizen is defined as persons 65 years and older. • Student fares available to children over 5 years, but less than 18 years old. • Children 5 years and younger ride free of charge.						

2. Fare Sales

Currently passengers may purchase passes from drivers on Routes A, B, and C. Although this system is adequate now, as ridership grows it will be increasingly difficult for the transit drivers to sell passes and maintain their schedule. For this reason, it is recommended that MDOT work with various public agencies or departments and retail establishments to sell fare media. Possible outlets include grocery stores, convenience stores, major resorts, and the Real Property Tax Division (Maui Mall Service Center), in addition to MDOT itself. MDOT could also sell passes by mail.

Appendices

APPENDIX 1: MEDIA COVERAGE

5-year mass transit plan for Maui being drawn up

By ILIMA LOOMIS, Staff Writer

Sunday, November 28, 2004

WAILUKU – Ridership is holding steady on Maui's public buses, and the county is now looking to the future of public transit.

Mainland-based engineering and planning firm Urbitran received a $149,800 contract to create a five-year plan for the system, consulting with agencies and groups on island to help design it.

Starting Monday, Urbitran will also hold community meetings to gather public input.

"People are saying it's about time we have a more unified plan, versus year-to-year," said county Transportation Director Kyle Ginoza. "It's good we're coming up with something we can stick to and have a direction."

The county has also obtained a $1 million federal grant for the transit program, money that is expected to be used to buy eight or nine buses.

"That's the first step to getting a marketable brand," Ginoza said, adding that a major obstacle to getting riders has been a lack of easily identifiable buses.

In the five months that contractor Roberts Hawaii has been operating Maui's bus system, ridership has been gradually climbing and is consistently higher than in the 16 months after the program was first launched with contractor Akina Aloha Tours.

Maui buses had 5,949 riders in October, 5,717 in September, 5,675 in August.

That's down from July, Roberts' first month of service, with 7,223 riders, but the high numbers in July are credited to Roberts decision to offer all rides for free during that first month.

Before Roberts got the contract, ridership peaked at 2,852, in May of this year.

Ginoza said he thought ridership had increased because the new system under Roberts provides better connections with Maui Economic Opportunity's two Central Maui shuttles.

Akina's system included its own shuttle that ran through Central Maui, but Roberts simply uses its buses to take riders from Kihei and West Maui to Kahului, where they connect with the MEO shuttle.

"I think it's just more functional for people," Ginoza said.

"It's been steady, consistent," said Roberts Maui Manager Brian Marumoto of the bus ridership.

He said the company had been passing out comment cards to riders and getting "favorable" responses.

"All they want is more frequency – instead of every hour, sometimes every half-an-hour," he said.

Ginoza said increasing frequency will be one of the ideas considered for the program's five-year plan.

Other ideas that will be discussed at this week's public meetings include adding new routes to the bus system or changing existing routes.

"We already have pretty good coverage in South Maui and Central Maui," Ginoza said. "We could increase the frequency, or add service in West Maui and Upcountry."

Funding for transit programs is always a consideration. Roberts has a contract for just under $500,000 to operate the service through July 2005. Maui Economic Opportunity has a contract for about $300,000.

In its report due in January, Urbitran will also recommend a capital plan to support the service.

Jessica Greig of Urbitran said that so far she has been hearing a positive response about transit on Maui.

Maui's small population can support a public transportation system, she said, but it must be tailored to island demographics.

While a large city would need a high-frequency transit system covering all neighborhoods, more rural areas usually must design systems that focus on specific routes and times most likely to be used by riders.

"Overall, there's a strong interest in having reliable transit service," she said. "I think folks using the service now are very appreciative of what's being offered, and they look forward to having an increasing presence of transit on the island."

Leaders of community groups had a range of suggestions for planners of the transit system.

Maui Hotel Association Executive Director Lani Correa called the current system "a good start."

"I believe the service they provide right now is working for the people who take advantage and use it," she said.

But while hotels are interested in finding a transportation system for employees, not many hotel workers currently ride the bus, she said.

While some have organized private van pools, the public bus' limited schedule doesn't coincide well with the shifts and odd hours worked by many hotel employees, she said.

For a public transit system to reach mainstream riders like hotel workers and be used regularly by the population at large, it would have to be wide-ranging, frequent and comprehensive, like Oahu's bus system, she said.

"Of course, it's a huge investment," she added.

West Maui Taxpayer's Association Executive Director Ezekiela Kalua said residents have asked for additional routes in West Maui.

Specifically, the Akina system included buses from Lahaina to Kapalua – routes discontinued by Roberts.

"I know (residents) wanted to see that system put back in place," he said.

Harry Hecht of the Kihei Community Association said he supports transit "at a reasonable cost," and felt a public transit system would significantly enhance the quality of life on Maui.

"It's very hard to exist on Maui without a car, and Kihei is no exception," he said.

While he said the existing bus system's routes were a good start, he felt the system should have greater frequency, with buses coming at least every half-hour, "so if you miss the bus you don't need to wait hours for the next one to come along."

Ginoza said one of the biggest challenges facing transit was getting people to give up their cars and ride the bus.

That's why he considers "those who can't drive or no longer want to drive," primarily youth and seniors, the prime potential riders.

"In all jurisdictions, it's going to be hard to get you or me, people who already have cars, to use transit," he said.

Mauians grapple with plans for mass transit

By HARRY EAGAR, Staff Writer

December 1, 2004

HA'IKU – Twenty Mauians gathered at Ha'iku Community Center Monday to start an islandwide discussion of a difficult question: how to develop a mass transit system on a shoestring.

John Broker, a senior transit planner with consultant Urbitran, said the meetings were not designed to come up with an impossible wish list but, rather, with a to-do list that might be accomplished within five years.

"This is real immediate stuff," he told the listeners, about half of whom had come in two Maui Economic Opportunity buses.

In the talk-story before the formal session, it became obvious that several, who do drive, are frustrated, even in countrified East Maui, by streams of cars that prevent them from pulling onto Hana Highway – at least, not without an irritating wait.

Cost of a bus or van system will be a premier consideration, and Broker asked them to think what they would do if he gave them $10. How would they spend it?

When the crowd broke into focus groups, one seemed fairly well agreed that fares should be kept to $1, each way. "Dollar up, dollar down," said Agnes Groff, a 30-year resident of Ha'iku.

Broker said everything is up for discussion at this time: whether a system should be public or private, bus or van, where it should go and how often, how it would be paid for, what its name should be.

A good name, he said, is important in marketing whatever service is offered.

Urbitran, with a contract from the new county Transportation Department, has been collecting information about mass transit for some time. Urbitran transportation engineer Jessica Greig has boarded the various buses already in operation to ask riders what they think. The community meetings are designed to catch the opinions of those who do not ride a bus yet.

There remain 6 p.m. meetings today at the Lahaina Civic Center, Thursday at Kahului Community Center, and Friday at Kula Community Center.

At present, there are three bus systems in operation: Maui Economic Opportunity's two routes that run as often as every two hours in Wailuku and Kahului; MEO's rural shuttle that runs from one to three times a week; and Maui Public Transit, being operated by Roberts Hawaii between Wailea, Maalaea and Lahaina, with runs into Kahului.

East Maui, with its low population, is not likely to end up as one of the prime "trip generator" points. Broker said resorts, the hospital and other large employers likely would become nodes in an eventual network, just because they represent favored destinations.

Identifying the dispersed collection points is trickier. "It would be wonderful to have a service that would get from (Ha'iku) to Wailuku every hour. But is that realistic?" Broker cautioned.

Groff said in East Maui, she sees plenty of hitchhikers, evidently waiting for rides to construction jobs. And besides older people and people with disabilities who cannot drive any longer, the young people would use a bus system.

Nikhilananda said it will be a must to equip the buses with surfboard and bicycle racks.

Another idea floated in the groups was to have a single bus circulating around Ha'iku, Makawao and Paia all day, linking to a route that would originate in Paia to reach other parts of the island.

Kihei riders want more bus service

By ILIMA LOOMIS, Staff Writer

December 2, 2004

KIHEI – South Maui residents want a bus service with longer hours, more destinations and lower fares – and they want it seven days a week.

That's according to about 50 people who turned out Tuesday for a public transit planning meeting in Kihei.

Consultant John Broker, who led the meeting, said he'd picked up several "trends" among the laundry lists of requests that were made.

"I'm getting that there's a need for both local service and some regional service," he said during a break.

The top regional destination for South Maui riders seemed to be Central Maui, but they also wanted a system that reached the rest of the island, including West Maui and Upcountry.

The Kihei community appeared to have different priorities from Ha'iku, where Broker met with residents earlier this week.

Kihei residents seem to want more frequent bus service, and they want it every day of the week.

In Ha'iku, residents seem to want the bus mainly to get into Central Maui on workdays.

"They said five days a week would be OK, and they said every three hours," Broker said. "It's a different level of service."

Broker is a senior transit planner with the engineering and planning firm Urbitran, which is designing a five-year transit plan for Maui County. The plan is expected to be complete in January.

Kihei Resident Marcelo Abalos, who uses the bus to commute to his job in Lahaina, said he'd like to see the bus start earlier in the morning.

While his boss is flexible with his 7 a.m. start time, Abalos usually arrives in Lahaina around 8:20 a.m. on the bus.

"It's a little bit late," he said.

It would help if he didn't have to change buses at Maalaea.

"Why not have one bus from Kihei to Lahaina?" he asked.

He was satisfied with the price of the bus, especially since he paid $45 for a monthly pass that lets him ride whenever he wants.

"It's good. I save a lot of money," he said.

Others at the meeting said they'd like to see the bus stop at Kahului Airport.

Community police officer Brad Hickle said mass transit could get rental cars off the roads.

"I think it would be a good idea to have some sort of mass transit system to transport people from the airport to hotels," he said.

An airport bus stop would help both visitors and traveling residents who are in wheelchairs, added Kihei resident Ed Muegge. Currently, disabled travelers must rent an accessible vehicle or hire a special car service to get to and from the airport, he said.

"It's very expensive."

Other ideas floated at the meeting included:

Fares. Several people suggested fares of $1 for a local trip and $2 for a regional trip, although one group asked for half that amount.

Seniors. With a large number of elderly residents at the meeting, suggested discounts for seniors – from free passes to $20 yearly passes to half-price – were popular.

Hours. Suggested hours ranged from a 6 a.m. start time to an 11 p.m. finish.

Days. Almost all participants agreed the bus should run seven days a week, with some suggesting a reduced schedule for Sundays and holidays. Currently, the bus runs Monday through Saturday.

Urbitran's public meetings will continue at 6 p.m. today at the Kahului Community Center and 6 p.m. Friday at the Kula Community Center.

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Crowd gets aboard to share ideas on transit

By ILIMA LOOMIS, Staff Writer

December 3, 2004

KAHULUI – About 100 people packed the Kahului Community Center on Thursday night to add their ideas to plans for public transit on Maui.

Many joined the chorus asking for longer hours, more frequency and expanded routes for the still-young public bus service.

"This was our largest group yet," said John Broker, senior transit planner for Urbitran, which is preparing a report on transit for Maui County.

He said the Kahului meeting reinforced that Central Maui was "the most important destination" for most Maui riders.

"They had the same idea that everyone else did, that the most important service was in Central Maui," he said.

Riders are demanding service both into and out of Kahului and Wailuku, with residents of outlying communities coming in to work and do business, and residents of Central Maui commuting to Wailea and Lahaina for resort jobs, he said.

Although the meeting was about the county public transit program, a large number of users of the Maui Economic Opportunity Inc. transportation service, many bused in by the organization, came to speak in support of the MEO program.

Some said they were concerned that an expansion of public transit would take away from the MEO transportation program.

"We've assured them every night that we're in no way looking to reduce or compete with MEO services," Broker said.

Urbitran will submit a report on its recommendations to the county in January.

Broker said the report would reflect "the necessary level of service" for the community, and wouldn't be governed by the funding that's currently available.

"Of course, we'll work with (the county) to see what the available funding is and how to prioritize it," he said.

Serine Feliciano, an administrative assistant with the MEO transportation program, said that gathering people's ideas was important, and the community meeting was a great first step to developing a public transit system.

"This is one of the strongest things they can do," she said.

Norita De Lima, who lives in Hale Mahaolu Elua and rode her wheelchair to the meeting, wanted an expansion of the services she says gives her independence.

"I'm fighting for longer hours," she said.

Now, MEO transportation programs and the county public transit system help her get around, but the convenience is limited, she said.

"If you have a function after 5 p.m., you cannot go. It's simple," she said.

She also wanted a bus that could take her to Kihei, Lahaina and Upcountry.

"I have a lot of friends around the island," she said.

Public transit is badly needed by workers, especially people struggling to enter the work force, said Doreen Forsberg, branch manager of Labor Ready.

"It's the biggest issue," she said.

The private company that places people in temporary jobs, including many homeless people looking for work, found workers couldn't get around Maui like they could elsewhere.

"On Oahu, workers can just jump on the bus," she said.

Instead, Forsberg and her staff personally drive many workers to and from their jobs.

Some workers do use the existing public transit service, and Forsberg said it would help if the system added longer hours and more routes.

"Right now, it's limited to certain areas," she said.

Betty Yamashiro said she and other senior citizens needed transportation services, including the MEO bus, to get around.

"For the seniors, they should keep that program – and the disabled too," she said. "Otherwise, they don't have any way to go."

She wanted longer hours, service on Sundays and holidays, and more frequent buses.

"Now it's every two hours. I'd like to have it every one hour," she said.

She also hoped public transit would cut down on traffic.

"It's about time they get it, because they have so many cars," she said.

Harbor Lights resident Tom Sipiora said having a bus helped him get around in his wheelchair – although he found the MEO buses were more accessible and better able to accommodate him than the county system operated by Roberts Hawaii.

He said the county should operate its own bus system, not hire it out to contractors.

"They're getting paid for something Maui County should be doing," he said.

Broker said he was struck by the large turnout at the meetings, which included 20 in Ha'iku, 50 in Kihei, 75 in Lahaina and 100 in Kahului.

"There's certainly a need for transportation," he said. "People have a wide range of needs throughout the communities."

Connecting the dots in transit system

By VALERIE MONSON, Staff Writer

Sunday, December 05, 2004

KULA – For the last community meeting on how best to build a public transit system on Maui, everyone gathered near the end of the line.

The challenge of establishing mass transportation on the roads less traveled in the countryside of Kula was obvious, but not impossible, said John Broker, senior transit planner for Urbitran, the California-based firm that's preparing a five-year plan for the county.

"It's the place farthest from the main towns, and the population here is more sparse," said Broker, listing the hurdles that must be overcome to keep Kula in the loop. "To have a productive service up here will be tougher, but we're just trying to connect the dots."

The Friday night meeting at the Kula Community Center was the last of five public sessions held across the island over the past week by Broker and Urbitran transportation engineer Jessica Greig. By incorporating the wishes of the community along with observations made while riding Maui's fledgling bus system and engaging in conversations with those who use the service or drive the vans, Broker and Greig will compile a report with recommendations that will be delivered to the Maui County Council by Jan. 17.

"They'll take the data back and come up with conceptual routes, looking at what would make sense and what it would cost," said Don Medeiros, deputy director of the county's Department of

Transportation. “They’re trying to look at an entire package and put in a financial package to give to the council.”

The plan for the near future will stick with buses and/or vans, said Greig as she began the presentation.

“In 10 to 20 years, trains might make sense,” she added.

Even though the meeting could not have been held at a worse time – pau hana Friday during the busy Christmas season – about 50 Upcountry residents from Olinda to Ulupalakua took time out from shopping, baking or decorating to share their thoughts. Groups of seniors arrived on two Maui Economic Opportunity Inc. buses to make sure the upgraded system would not replace the services they love and depend on.

Greig and Broker assured them there was nothing to worry about.

“A lot of people have been concerned about MEO – we’re not looking at changing that,” said Broker. “People assume we’re trying to cut everything out, and we’re not.”

Instead, they’re trying to increase routes and improve service for the public at large. With Maui continuing to grow and traffic already causing headaches, Broker said the time has come to put a plan in place to get cars off the road and give residents an alternative to driving.

“Congestion is only going to get worse, and there are just a limited number of roads so something has to be done soon,” he said. “As it is now, Maui can support a public transit system. The geography lends itself to some form of transit. Development isn’t as spread out as it could be even though it’s starting to sprawl.”

Not urbanized enough to support an Oahu-like network of buses, but in great need of connecting the dots from Ha’iku to Lahaina and from Upcountry to Kihei with stops along the way, Maui presents an unusual kind of obstacle course for mass transit.

It can be done, though, said Greig. She said Urbitran had faced similar hitches when designing a system for rural North Carolina that would link separate rural populations in a farming area. Main collector hubs were fed by smaller vans that were more able to “deviate” from set routes to increase convenience.

In Kula, with its narrow, winding roads, large buses would not work well so vans probably would be used to bring passengers to central locations to be transferred to the bigger coaches for the ride to Central Maui.

Comments from the community echoed many of those heard earlier in the week. After they split up into small groups to put together lists, various leaders reported back. Erin Starr, who drove over from Olinda, said her group would like to see the consultants conduct a survey of Kula because they thought more younger people needed to be polled.

Starr also recommended that the buses and vans be able to accommodate such bulky items as surfboards, shopping bags and luggage to encourage more people to use the service.

“We’re thinking people would leave their cars at home and ride the bus like in Honolulu or New York City,” she said. “I know I would.”

Major Upcountry hubs could include the Mayor Hannibal Tavares Community Center in Pukalani, the Mayor Eddie Tam Community Center in Makawao and St. John’s Episcopal Church in Keokea. A central Kula site was left up in the air.

Members of Cal Kong’s group emphasized that they didn’t want the MEO program touched.

"The system we have now is great," said Kong, who lives in Kula. "We have all we need. . . I don't like to see a change, except for the younger generation."

If the new buses or vans can't operate daily, Irene Chung said, her group suggested that they run on the days that MEO does not.

All vehicles in the improved system would be accessible for people with disabilities and equipped with lifts for wheelchairs.

From the back of the room, Broker said he was impressed with the turnout at the series of meetings, which indicated a keen interest by Mauians in finding alternative ways of traveling. Once an upgraded system gets put in place, marketing and easily available bus schedules will encourage more people to try it, added Greig.

In the meantime, however, she offered an inexpensive way to reduce some of the traffic problems on Maui: Synchronize the traffic lights. Greig said she was surprised how often uncoordinated signals were the reasons for delays.

"Poor synchronization causes more congestion than needs to be," she said.

APPENDIX 2: DETAILED ROUTE DESCRIPTIONS

A. Kahului Routes A and B

Kahului Loop A

Kahului Loop A will be a circulator route that uses the Queen Ka'ahumanu Center as its hub. The route serves residential portions of Kahului and provides connections to the growing retail and commercial area along Dairy Road. The loop also serves Maui Memorial Hospital and Kaiser at the end of its routing. This route provides connections in Kahului to persons coming into the town on Island routes as well as persons coming from the Wailuku area. The route could interline with Wailuku Loop A to provide a single-seat ride to patrons and create an easier shift for drivers. The route starts at the Queen Ka'ahumanu Center and leaves via the mall routing, passing the Macy's side door and exiting onto Wakea Street, taking a left. Once on Wakea, the route takes a right on Hina Avenue, a right on South Kamehameha Avenue, a left onto West Papa Street, a right onto Pu'unene Avenue. The route would then take a left onto Dairy Road, providing direct connections to Wal-Mart, the Maui Marketplace, and K-Mart. The route would take a left onto Haleakala Highway and merge onto Hana Highway. Kahului Loop A would then enter the Maui Mall via the rear of the stores and provide connections to the Maui Mall and Ah Fooks Supermarket. The loop would then exit Ah Fooks by taking a left onto Ka'ahumanu Avenue, taking a left onto Wakea Avenue and re-entering the

Queen Ka'ahumanu Center. With time left in the schedule, Kahului Loop A would then provide a connection to Maui Memorial Hospital via Wakea, left on Ka'ahumanu Avenue, left on Mahalani Street and entering the hospital from the rear entrance. The route would exit the hospital and continue on Mahalani, taking a right on Maui Lani Road to serve the Maui Lani Clinic. From this location, the route would return to the hub by taking a right on Ka'ahumanu Avenue, a right on Wakea, and a left into the Queen Ka'ahumanu Center rear entrance.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	Left on Wakea, right on Hina, right on Kamehameha, left on W. Papa, right on Pu'unene to corner of Dairy	2.78	25 to 30	10	Queen Ka'ahumanu Center Hale Mahaolu Elua Luana Gardens Maui High School	Hina @ Kamehameha Kamehameha @ La'au Kamehameha @ Molokai Akau Papa @ Lono Papa @ Hina Papa @ Lana'i	Residential neighborhood connecting to schools, housing, and providing quickest connection to Dairy Road retail and employment
2	Left on Dairy, serve Wal-Mart, right on Dairy, serve Maui Marketplace, K-Mart, to Haleakala Hwy	1.4	8 to 10	13	Wal-Mart Maui Marketplace K-Mart		Dairy Road can be slow moving. Access should be provided into the retail centers directly.
3	Left on Haleakala to Hana, left on Kamehameha, right into Maui Mall, serve Ah Fooks, left on Ka'ahumanu Avenue, left on Wakea, left into Queen Ka'ahumanu Center	2.85	10 to 12	18	Maui Mall Ah Fooks		Owners of Maui Mall should be contacted about service on their property. Maui Mall and Ah Fooks stops may need to be adjusted to improve circulation, as it can be challenging.
4	Right on Wakea, left on Ka'ahumanu, left on Mahalani to Maui Memorial, continue Mahalani, right on Maui Lani, right on Ka'ahumanu, right on Wakea, left into Ka'ahumanu	3.4	25.00	12	Queen Ka'ahumanu Center Kaiser Permanente Hospital Maui Memorial Hospital Maui Lani Clinic		Additional time in schedule allows for extra medical connection. When Kahului B is implemented, only A should provide this connection.
	Total	**10.43**		**53**			

Kahului Loop B

Kahului Loop B should be implemented in a later year of the plan. The routing will be the reverse of Loop A and provide service on 30-minute schedule that alternates with Loop A. Loop B may take slightly longer as it will need to cross roadways to access K-Mart, Maui Marketplace, and Wal-Mart. The route can also be diverted to serve the Kahului Aiport, utilizing the time in which Loop A serves the medical area. The route will be able to provide better coverage for Ah Fooks and the Maui Mall. The route can also be used to provide better connections to retail and employment locations on the opposite side of the road from generators on Loop A.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	Right on Ka'ahumanu, right into Ah Fooks, straight into Maui Mall, right on Hana Highway, bear left onto Haleakala to Airport.	3.7	10 to 12	22	Queen Ka'ahumanu Center Ah Fooks Maui Mall Kahului Airport		Loop B will have easier access to serve the front door of Ah Fooks and Maui Mall
2	Return to Dairy, serve K-Mart, Maui Marketplace, and Wal-Mart, left on Dairy to Pu'unene.	2.75	8 to 10	21	K-Mart Maui Marketplace Wal-Mart		Loop B will need to cross Dairy to access retail plazas, adding time to the route.
3	Right onto Pu'unene, left onto Papa, right on Kamehameha, left on Hina, left on Wakea, right in Queen Ka'ahumanu Center.	2.78	20 to 30	10	Queen Ka'ahumanu Center Hale Mahaolu Elua Luana Gardens Maui High School	Hina @ Kamehameha Kamehameha @ Laau Kamehameha @ Molokai Akau Papa @ Lono Papa @ Hina Papa @ Lana'i	This will provide a quick trip to the Queen Ka'ahumanu Center.
	Total	**9.23**		**53**			

B. Wailuku Routes A and B

Wailuku Loop A

The Wailuku Loop A will serve residential markets in Wailuku as well as the State Government Center, Maui Memorial Hospital and other major generators in the town. The Loop will start at the Queen Ka'ahumanu Center providing connections to Kahului and Islander routes. This route could interline with Kahului Route A providing a single-seat ride to bus patrons and easing operations for the driver. The route would exit the Queen Ka'ahumanu Center by taking a right on Wakea Avenue, left on Ka'ahumanu Avenue, left on Mahalani Street (Kaiser & Maui Memorial Hospital), out and back on Maui Lani to serve the clinic, right on Waiale Avenue, left on Kaohu Street, right on High Street (State Government Center), right on Main Street, left on Central Avenue (Ooka Supermarket), right on Vineyard Street, left on Mission Street, right on Mill Street, left on Imi Kala Street (Post Office), follow the Wili Pa Loop back to Imi Kala, right on Mill Street, right on Market Street, turns into Kahekili Hwy, right on Makaala Drive, right on Waiehu Beach Road (Sack & Save), right on Eha Street, left on Waena Street, left on Lower Main Street, right on Kahului Beach Road, enter the Maui Community College serving the college and Harbor Lights, exit via front entrance straight onto Wakea Avenue, entering the Queen Ka'ahumanu Center from the rear.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	Right on Wakea, left on Ka'ahumanu, left on Mahalani, right on Maui Lani & return, right on Waiinu, right on Waiale, left on Kaohu, right on High Street to Main Street	4.17	12 to 20	16	Queen Ka'ahumanu Center Kaiser Permanente Hospital Maui Memorial Hospital Maui Lani Clinic Iao Intermediate School State Government Center	Cameron Center Mahalani @ Waiale Waiale @ Waiinu Waiale @ Kaohu	Maui Memorial should be entered at rear; Maui Lani must be entered and exited via first entrance - second entrance is right-turn only; Mahalani @ Waiale provides access from Ka Hale A Ke Ola within 1/4 mile; Kaohu is steep hill with school.
2	Right on Main Street, left on Central Avenue, right on Vineyard, left on Mission, right on Mill, left on Imi Kala, turn around on Imi Kala, right on Mill to Market	1.75	10 to 18	11	Main @ Market Ooka Supermarket Post Office	Central @ Vineyard Vineyard @ Mission Mission @ Mill Mill @ Central Mill @ Market	Post Office poses an operational question, whether to serve directly or streetside. If served directly, eliminate Wili Pa Loop.
3	Right on Market to Kahekili Hwy, right on Makaala, right on Waiehu Beach, right on Eha, left on Waena, left on Lower Main to Kahului Beach Road	3.9	15 to 25	17	Kahekili Terrace Pi'ihana Terrace Hale Mahaolu Ekolu Hawaiian Homes Sack n Save Wailuku Community Center	Market @ Kahawai Kahekili @ Makaala Makaala @ Nakuhulai Makaala @ Alihilani Makaala @ Hilinai Makaala @ Waiehu Beach Rd Eha @ Momi Waena @ Lower Main Lower Main @ Housing Apts	Makaala has speed bumps, will slow route; Sack n Save should be served directly.
4	Right on Kahului Beach Road, right on Wahinepio, left into and around Maui Community College, exit to Wakea Avenue, left into Queen Ka'ahumanu Center	2	15 to 25	9	Maui Arts & Cultural Center Harbor Lights Maui Community College	Kahului Boat Ramp Access	Maui Arts is served at entrance; 3 stops in Community College - first in front of rear middle building, second at location to serve Harbor Lights, third in front of Student Center; consider a shelter at stop location for Harbor Lights & Community College.
	Total	**11.82**		**53**			

Wailuku Loop B							
Wailuku Loop B should be implemented in the later years of the plan. The routing will be the opposite of Wailuku Loop A, providing 30-minute headways along the loop. The route will be able to provide quicker connections to Waihea from the Ka'ahumanu Center hub as well as faster medical connections for persons in Waihea and the neighborhoods adjacent to downtown Wailuku.							
Segment	**Vehicle Movements**	**Distance**	**Average Speed (MPH)**	**Running Time (Minutes)**	**Major Locations**	**Other Stop Locations**	**Notes**
1	Wakea to Maui Community College, left on Kahului Beach Rd, left on Lower Main	2	15 to 25	9	Maui Arts & Cultural Center Harbor Lights Maui Community College	Kahului Boat Ramp Access	Maui Arts is served at entrance; 3 stops in Community College - first in front of rear middle building, second at location to serve Harbor Lights, third in front of Student Center; consider a shelter at stop location for Harbor Lights & Community College.
2	Lower Main, right on Waena, right on Eha, serve Sack 'n Save, left on Waiehu Beach Rd, left on Makaala, left on Kahekili Hwy to Market	3.9	15 to 25	17	Pi'ihana Terrace Hale Mahaolu Ekolu Sack n Save Wailuku Community Center	Market @ Kahawai Kahekili @ Makaala Makaala @ Nakuhulai Malaka @ Alihilani Makala @ Hilinai Makala @ Waiehu Beach Rd Eha @ Momi Waena @ Lower Main Lower Main @ Housing Apts	Makaala has speed bumps, will slow route; Sack 'n Save should be served directly.
3	From Market - left on Mill, left on Imi Kala (Post Office), Wili Pa Loop, right on Mill, left on Mission, right on Vineyard, left on Central, right on Main to High	1.75	10 to 18	11	Main @ Market Ooka Supermarket Post Office	Central @ Vineyard Vineyard @ Mission Mission @ Mill Wili Pa Loop Mill @ Central Mill @ Market	If post office is served directly, eliminate Wili Pa Loop.
4	High, left on Kaohu, right on Waiale, left on Mahalani, left on Maui Lani & return, left on Mahalani, right on Ka'ahumanu, right on Wakea, left into Ka'ahumanu Center	4.17	12 to 20	16	Queen Ka'ahumanu Center Kaiser Permanente Hospital Maui Memorial Hospital Maui Lani Clinic State Government Center	Cameron Center Mahalani @ Waiale Waiale @ Kaohu Kaohu @ Kalua	Maui Memorial should be entered at rear; Maui Lani must be entered and exited via first entrance - second entrance is right-turn only; Mahalani @ Waiale provides access from Ka Hale A Ke Ola within 1/4 mile; Kaohu is steep hill with school.
	Total	**11.82**		**53**			

C. Villager Routes

Kihei Villager Route

The Kihei Villager could operate as a deviated fixed route serving ADA eligible and general public patrons in Kihei. The route should operate between Uwapo Road and the Shops at Wailea, providing connections primarily along Kihei Road. The route should be as follows: from Uwapo on South Kihei, left on Pi'ikea to the Pi'ilani Village Shopping Center. From this point, the rotue should exit the Pi'ilani Village Shopping Center and go right onto Pi'ikea Avenue. The route should then take a left onto South Kihei Road, left on Okolani Drive, right on Wailea Alanui Drive, serve the Shops at Wailea, using this as a turn-back spot. This will provide access for workers at the numerous resorts in the area of the Shops at Wailea. The route should return along the same routing.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	From Uwapo on S. Kihei, left on Pi'ikea, left into Pi'ilani Village Shopping Center	3	12 to 20	10.00	Kihei @ Uwapo Pi'ilani Shopping Center Long's Drug Plaza	Kihei @ Kulanihakoi Kihei @ Kaonoulu Kihei @ Ohukai	Traffic moves slowly through some portions of Kihei during peak periods; Malls and shops should not be served directly on southbound trip. Northbound should serve Foodland and Azeka's Place.
2	Leave Pi'ilani Shopping Center, right on Pi'ikea, left on S. Kihei, left on Okolani, right on Wailea Alanui, to Shops at Wailea	5.5	20 to 30	15	Azeka's Place Kalama Park Kamaole Beach III Shops at Wailea	Kihei @ Wailea Ekahi Okolani @ Wailea Alanui Renaissance Wailea Outrigger Wailea	Wailea Shuttle can provide additional service from the shops for resort workers
	Total	**8.5**		**25**			
	Round Trip	**17**		**50**			

Lahaina Villager Route

The Lahaina Villager Route could operate as a deviated fixed route serving residents and visitors to Lahaina by connecting major generators to residential neighborhoods. The termini for the route should be off of Lahainaluna Road and the Youth Center on Shaw Street. The route should use the Kelawea Street, Aki Street, and Kale Street as the northern terminal loop. The route should then follow Lahainaluna, right on Honoapi'ilani Highway and into the Lahaina Cannery Mall. The route should serve the mall and exit out of the rear of the property, taking a left onto Front Street. The route should follow Front Street, take a left on Shaw and follow Shaw to the Youth Center on the opposite side of the Honoapi'ilani Highway. The route should return along the same routing.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	From Kelawea Street, left on Aki, left on Kale, right on Lahainaluna, left on Pauoa to Lahaina Senior Center and out again, left on Lahainaluna, right on Honoapi'ilani, left into the Lahaina Cannery Mall	1.95	15 to 30	6	Hale Mahaolu Lahaina Senior Center Lahaina Cannery Mall		If timing is an issue the route could use the Lahaina Senior Center as a terminus.
2	From Lahaina Cannery Mall parking lot, turn left on Front and left on Shaw to Youth Center	1.85	8 to 12	20	Front @ Papalaua St Wharf Cinema Center Front @ Canal Front @ Shaw Lahaina Youth Center		Traffic tends to move very slowly along Front, but there is no viable alternative that would provide the same level of service. Youth Center will provide turn-back spot.
	Total	**3.8**		**26**			
	Round Trip	**7.6**		**52**			

D. Islander Routes: Kihei and Lahaina

Lahaina Islander Route

The Lahaina Islander Route should operate as an express route with fixed stops - serving long-distance trips between Lahaina and the Queen Ka'ahumanu Center via transfers at the Maui Ocean Center at Ma'alaea. The route should use the Wharf Cinema Center as the terminus in Lahaina. The route should enter Lahaina by taking a left on Lahainaluna Road, a left on Wainee Street, right on Prison Street, left on Front, left on Dickenson, right on Wainee, left on Shaw, and a right on Honoapi'ilani Highway. The route should then follow the highway to Ma'alaea, taking a right into the Maui Ocean Center and exit via the signalized location nearby. The route should then take a right onto the Honoapi'ilani Highway and a right onto the Ku'ihelani Highway (which will turn into Dairy Road) and a left on the Hana Highway. The route should only serve the Maui Mall; local service is provided via the Kahului Loop. The route should follow the Hana Highway to Ka'ahumanu Avenue, taking a left on Wakea Avenue and a left into the Queen Ka'ahumanu Center Mall. The route should return along the same routing.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	Left onto Lahainaluna Road, left on Wainee, right on Dickenson, left on Front, left on Prison, right on Wainee, left on Shaw, right on Honoapi'ilani Hwy to Maui Ocean Center	15.7	15 to 40	28	Wharf Cinema Center Maui Ocean Center	Shaw @ Honoapi'ilani Honoapi'ilani @ Olowalu	If time allows, route could be extended to the Lahaina Cannery Mall.
2	Ocean Center to Honoapiilani, right on Kuihelani to Dairy Road at Hana Highway	7.7	12 to 35	17	Maui Ocean Center	Ku'ihelani @ Waikapu Road Ku'ihelani @ Pu'unene Dairy @ Hana Hwy	Very little activity along this segment.
3	From Hana, left on Ka'ahumanu, left on Wakea, left into Queen Ka'ahumanu Center	2.4	12 to 20	9	Maui Marketplace Queen Ka'ahumanu Center	Maui Mall	Maui Marketplace will provide connections to Dairy Road retail; Maui Mall can have front door service if time allows.
	Total	**25.8**		**54**			
	Round Trip	**51.6**		**108**			

Kihei Islander Route

The Kihei Islander Route should operate between the Shops at Wailea and the Queen Ka'ahumanu Center Mall via the Ocean Center in Ma'alaea and Wailuku. The route should exit the Shops at Wailea on Wailea Ike and proceed to the Pi'ilani Highway, taking a left on Pi'ikea and a right into the Pi'ilani Center. The route should then take a right onto Pi'ikea take a right on South Kihei Road. The route should provide local service on South Kihei and North Kihei, then act as an express for the remainder of the route. The route should go left on Honoapiilani to access the transfer location at the Ocean Center. From the Ocean Center, the route should go right on Honoapiilani Highway which will turn into High Street in Wailuku. The route should go right on Kuikahi Road, left on Waiale Road, left on Koa Drive, right on Kalua Road, left on Kahokele Street, and right on High Street. This will provide direct connections to the prison and Ka Hale A Ke Ola. Once on High Street, the route will serve the State Government Center, go right onto Main Street, continue to Wakea (right) and then turn left into the Queen K'ahumanu Center Mall. The route should return along the same alignment.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	Exit Shops at Wailea to left, right on Wailea Ike Drive, left on Pi'ilani Highway, left on Pi'ikea, right into Pi'ilani Village Shopping Center	5.75	20 to 35	8	Shops at Wailea Pi'ilani Shopping Center	None	Route should express between Shops at Wailea and Pi'ilani Shopping Center.
2	Exit Pi'ilani Shopping Center, right on Pi'ikea Street, right on South Kihei Rd., left on Honoa Pi'ilani to Ocean Center at Ma'alaea	8	20 to 30	19	Long's Drug Plaza Kihei @ Uwapo Kealia Beach Plaza Ocean Center	Kihei @ Kulanihakoi Kihei @ Kaonoulu Kihei @ Ohukai Kihei @ Kealia Pond Kihei @ Park & Ride	Due to available time in the schedule, the route will provide local service along this segment to compliment the Kihei Villager.
3	Ocean Center, right on Honoa Pi'ilani, into High Street to Main Street	7	25 to 35	20	Honoapiilani @ Kihei Ka Hale A Ke Ola State Correction Facility State Government Center	Honoapiilani @ Waiko Rd Honoapiilani @ Kuikahi Waiale @ Koa High @ Kaohu	Construction activity may require route modifications over time. Continued development will need to be monitored and route adjustments made.
4	Right on Main, right on Wakea, left into Queen Ka'ahumanu Center	2.25	10 to 20	8	Queen Ka'ahumanu Center		If time allows, consideration should be given to adding Maui Lani Clinic or Kaiser as a stop.
	Total	**23**		**55**			
	Round Trip	**46**		**110**			

E. Islander Routes: Ha'iku, Makawao, Lahaina|Kihei, and Lahaina-Napili

Ha'iku Islander Route							
The Ha'iku Islander Route will provide service between the Ha'iku Marketplace and the Queen Ka'ahumanu Center Mall via Pa'ia. This route will serve these communities and provide a connection to the airport, a frequently requested destination. From Ha'iku, the route should proceed from the Haiku Marketplace on Ha'iku Road, bearing right onto Pauwela Road to serve the Community Center at the intersection with Hana Highway. The route should then follow Hana Highway through Pa'ia, serving that community. Approaching Kahului, the route should follow Haleakala Highway to the Hana Highway, stopping at the Maui Mall and taking a left onto Ka'ahumanu Avenue, a left on Wakea and a left into the Queen K'ahumanu Center. The route should return along the same alignment.							
Segment	**Vehicle Movements**	**Distance**	**Average Speed (MPH)**	**Running Time (Minutes)**	**Major Locations**	**Other Stop Locations**	**Notes**
1	Ha'iku Marketplace, right on Ha'iku, veer right onto Pauwela to Ha'iku Community Center	1.5	15 to 25	8	Ha'iku Marketplace Ha'iku Community Center		Routing provided is believed to be the safest and most effective at reducing travel through difficult geography.
2	Exit Ha'iku Community Center towards Pa'ia on Hana Hwy, left on Ka'ahumanu, Maui Mall, left on Ka'ahumanu, left on Wakea, left into Queen Ka'ahumanu Center	13.1	15 to 35	33	Kuau @ Kalua Pl Pa'ia @ Baldwin Kaunoa Maui Mall Queen Ka'ahumanu Center	Hana Hwy @ Ha'iku Rd Hana Hwy @ Hookipa Pl Hana Hwy @ Kuau Beach Pl	Pa'ia "crawl" will affect afternoon traffic; timing has been made conservative due to this; if time allows, additional stops can be made.
	Total	**14.6**		**41**			
	Round Trip	**29.2**		**82**			

Makawao Islander Route

The Makawao Islander Route should connect downtown Makawao to the Queen Ka'ahumanu Center via Pukalani. The route should use the County property across from St. Joseph's School as a turn around, then follow Makawao Avenue to Old Haleakala Highway serving the Pukalani Terrace Shopping Center and the Tavares Community Center on Pukalani Street. From this location the route should take a left on Old Haleakala Highway, merging onto the Haelakala Highway. Approaching Kahului, the route continues on Haleakala Highway and takes a right onto Aalele Street to Keolani Place to the Kahului Airport. From this location the route should follow Keolani to the Haleakala Highway to the Hana Highway, stopping at the Maui Mall and taking a left onto Ka'ahumanu Avenue, left on Wakea and left into the Queen Ka'ahumanu Center. The route should return along the same alignment.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	From St.Joseph's take Makawao west, right on Old Haleakala, left on Pukalani to Pukalani Terrace Shopping Center	3.15	10 to 25	11	Downtown Makawao @ Baldwin Eddie Tam Park Pukalani Superette Old Haleakala @ McDonalds Pukalani Terrace Center Tavares Center	Makawao Library Makawao @ Apana Road Makawao @ Haleakala Hwy	Traffic can be difficult at intersection of Makawao & Baldwin.
2	Pukalani, left on Old Haleakala to Haleakala Hwy, right on Aalele, right on Keolani to Airport	8.57	15 to 35	19	Old Haleakala @ Alea Place Haleakala @ SR 371 Kahului Airport	Haleakala @ Keahua Rd	Airport routing may be changed.
3	Airport via Keolani, right on Old Haleakala right onto Hana, left on Ka'ahumanu, left on Wakea, left into Queen Ka'ahumanu Center	3.5	12 to 20	10	Maui Mall Queen Ka'ahumanu Center		Additional stops can be added if time allows.
Total		**15.22**		**40**			
Round Trip		**30.44**		**80**			

Lahaina|Kihei Islander via Pi'ilani Shopping Center

This route is a long-distance service connecting Lahaina, Ma'alaea, Kihei, and Kahului through a combination route. This may be appropriate for earlier plan years, midday service, or evening/night service. The route should use the Wharf Cinema Center as a terminus in Lahaina. The route should enter Lahaina by taking a left on Lahainaluna Road, a left on Wainee Street, right on Dickenson Street, left on Front, left on Prison, right on Wainee, left on Shaw and a right on Honoapi'ilani Highway. The route should then follow the highway to Ma'alaea, taking a right into the Maui Ocean Center and exit via the signalized location nearby. From this location the route should take a right onto North Kihei Road to South Kihei Road, taking a left onto Pi'ikea Road and entering the Pi'ilani Village Center Shopping Center. The route should exit the Pi'ilani Center taking a left on Pi'ikea Road and left onto the Pi'ilani Highway. The route should go right onto

Mokulele Highway, following this road and taking a right onto Dairy Road. The route should only serve the Kahului Town Center Mall. The route should follow the Hana Highway to Ka'ahumanu Avenue, taking a left on Wakea Avenue and a left into the Queen Ka'ahumanu Center. The route should return along the same alignment.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	Left onto Lahainaluna Road, left on Wainee, right on Dickenson, left on Front, left on Prison, right on Wainee, left on Shaw, right on Honoapi'ilani Hwy to Maui Ocean Center	15.7	15 to 40	30	Wharf Cinema Center Maui Ocean Center	Shaw @ Honoapi'ilani Honoapi'ilani @ Olowalu	If time allows, route should be extended to the Lahaina Cannery Mall.
2	Maui Ocean Center, right on Honoapi'ilani, right on Kihei, left on Pi'ikea, left into Pi'ilani Shopping Center	8.15	15 to 30	23	Pi'ilani Shopping Center Long's Drug Plaza Kihei @ Uwapo Kealia Beach Plaza	Kihei @ Kulanihakoi Kihei @ Kaonoulu Kihei @ Ohukai Kihei @ Kealia Pond Kihei @ Park & Ride	
3	Pi'ilani Shopping Center, left on Pi'ikea, left on Pi'ilani Hwy, right on Mokulele to Dairy Road	9.4	20 to 35	18	Pi'ilani Hwy @ Ohukai Pi'ilani Hwy @ Kaiwahine Pi'ilani Hwy @ Mokulele	Kart Track Sugar Museum Animal Shelter	This segment should move quickly as roadway capacity is being expanded.
	Dairy Road, left on Hana Highway, left on Ka'ahumanu, left on Wakea, left into Queen Ka'ahumanu Center	1.9		10	Maui Marketplace Maui Mall		Additional stops can be added as time allows.
	Total	**35.15**		**81**			
	Round Trip	**70.3**		**162**			

Lahaina - Napili Islander Connection

This route is a express route for workers and visitors, connecting Lahaina to Napili. This route is intended to provide trips to the communities of Ka'anapali, Honokowai, Kahana, and Napili. The route will connect to the Lahaina Islander and Lahaina Villager at the Wharf Cinema Center in Lahaina. From this location, the route will exit Lahaina by taking a left on Honoapi'ilani Highway and continue to Napili. The route should return along the same routing. Private services provide connections to the various resorts between Lahaina and Ka'anapali which provide front-door service to these generators. This route will provide connections along the highway to a number of markets and retail locations that are well-suited for express service.

Segment	Vehicle Movements	Distance	Average Speed (MPH)	Running Time (Minutes)	Major Locations	Other Stop Locations	Notes
1	Wharf Cinema Center, right on Dickenson, left on Wainee, right on Lahainaluna, left on Honoapi'ilani Highway, turn back in Napili	10.5	25 to 40	25	Wharf Cinema Center Ka'anapali Retail Honokowai retail Kahana retail Napili retail	Lahania Civic Center	If the Lahaina Islander is extended to the Lahaina Cannery Mall, this route should terminate at that location. Additional stops can be added as time allows.
	Total	**10.5**		**25**			
	Round Trip	**21**		**50**			

APPENDIX 3: SAMPLE ROUTE SCHEDULES

The following are sample schedules at full implementation. Schedules for prior years may be generated using these schedules as a base. Electronic versions of these tables will be provided separately.

A. Kahului & Wailuku Loop Routes

Kahului Loop A

Leave Queen Ka'ahumanu Center	Luana Gardens	Papa @Hina	Wal-Mart	Kmart	Maui Mall	Queen Ka'ahumanu Center	Maui Lani	Arrive Queen Ka'ahumanu Center
06:45 AM	06:49 AM	06:52 AM	06:59 AM	07:08 AM	07:16 AM	07:26 AM	07:33 AM	07:38 AM
07:45 AM	07:49 AM	07:52 AM	07:59 AM	08:08 AM	08:16 AM	08:26 AM	08:33 AM	08:38 AM
08:45 AM	08:49 AM	08:52 AM	08:59 AM	09:08 AM	09:16 AM	09:26 AM	09:33 AM	09:38 AM
09:45 AM	09:49 AM	09:52 AM	09:59 AM	10:08 AM	10:16 AM	10:26 AM	10:33 AM	10:38 AM
10:45 AM	10:49 AM	10:52 AM	10:59 AM	11:08 AM	11:16 AM	11:26 AM	11:33 AM	11:38 AM
11:45 AM	11:49 AM	11:52 AM	11:59 AM	12:08 PM	12:16 PM	12:26 PM	12:33 PM	12:38 PM
12:45 PM	12:49 PM	12:52 PM	12:59 PM	01:08 PM	01:16 PM	01:26 PM	01:33 PM	01:38 PM
01:45 PM	01:49 PM	01:52 PM	01:59 PM	02:08 PM	02:16 PM	02:26 PM	02:33 PM	02:38 PM
02:45 PM	02:49 PM	02:52 PM	02:59 PM	03:08 PM	03:16 PM	03:26 PM	03:33 PM	03:38 PM
03:45 PM	03:49 PM	03:52 PM	03:59 PM	04:08 PM	04:16 PM	04:26 PM	04:33 PM	04:38 PM
04:45 PM	04:49 PM	04:52 PM	04:59 PM	05:08 PM	05:16 PM	05:26 PM	05:33 PM	05:38 PM
05:45 PM	05:49 PM	05:52 PM	05:59 PM	06:08 PM	06:16 PM	06:26 PM	06:33 PM	06:38 PM
06:45 PM	06:49 PM	06:52 PM	06:59 PM	07:08 PM	07:16 PM	07:26 PM	07:33 PM	07:38 PM
07:45 PM	07:49 PM	07:52 PM	07:59 PM	08:08 PM	08:16 PM	08:26 PM	08:33 PM	08:38 PM
08:45 PM	08:49 PM	08:52 PM	08:59 PM	09:08 PM	09:16 PM	09:26 PM	09:33 PM	09:38 PM
09:45 PM	09:49 PM	09:52 PM	09:59 PM	10:08 PM	10:16 PM	10:26 PM	10:33 PM	10:38 PM

Kahului Loop B

Leave Queen Ka'ahumanu Center	Maui Mall	Airport	Kmart	Wal-Mart	Papa @Hina	Luana Gardens	Queen Ka'ahumanu Center
07:15 AM	07:24 AM	07:37 AM	07:46 AM	07:54 AM	08:01 AM	08:04 AM	08:08 AM
08:15 AM	08:24 AM	08:37 AM	08:46 AM	08:54 AM	09:01 AM	09:04 AM	09:08 AM
09:15 AM	09:24 AM	09:37 AM	09:46 AM	09:54 AM	10:01 AM	10:04 AM	10:08 AM
10:15 AM	10:24 AM	10:37 AM	10:46 AM	10:54 AM	11:01 AM	11:04 AM	11:08 AM
11:15 AM	11:24 AM	11:37 AM	11:46 AM	11:54 AM	12:01 PM	12:04 PM	12:08 PM
12:15 PM	12:24 PM	12:37 PM	12:46 PM	12:54 PM	01:01 PM	01:04 PM	01:08 PM
01:15 PM	01:24 PM	01:37 PM	01:46 PM	01:54 PM	02:01 PM	02:04 PM	02:08 PM
02:15 PM	02:24 PM	02:37 PM	02:46 PM	02:54 PM	03:01 PM	03:04 PM	03:08 PM
03:15 PM	03:24 PM	03:37 PM	03:46 PM	03:54 PM	04:01 PM	04:04 PM	04:08 PM
04:15 PM	04:24 PM	04:37 PM	04:46 PM	04:54 PM	05:01 PM	05:04 PM	05:08 PM
05:15 PM	05:24 PM	05:37 PM	05:46 PM	05:54 PM	06:01 PM	06:04 PM	06:08 PM
06:15 PM	06:24 PM	06:37 PM	06:46 PM	06:54 PM	07:01 PM	07:04 PM	07:08 PM
07:15 PM	07:24 PM	07:37 PM	07:46 PM	07:54 PM	08:01 PM	08:04 PM	08:08 PM
08:15 PM	08:24 PM	08:37 PM	08:46 PM	08:54 PM	09:01 PM	09:04 PM	09:08 PM
09:15 PM	09:24 PM	09:37 PM	09:46 PM	09:54 PM	10:01 PM	10:04 PM	10:08 PM
10:15 PM	10:24 PM	10:37 PM	10:46 PM	10:54 PM	11:01 PM	11:04 PM	11:08 PM

Wailuku Loop A

Leave Queen Ka'ahumanu Center	Maui Memorial Hospital	Waiale/ Waiinu	State Government Center	Post Office	Hale Mahaolu Ekolu	Wailuku Community Center	Maui Community College	Arrive Queen Ka'ahumanu Center
06:45 AM	06:51 AM	06:58 AM	07:01 AM	07:10 AM	07:23 AM	07:29 AM	07:36 AM	07:38 AM
07:45 AM	07:51 AM	07:58 AM	08:01 AM	08:10 AM	08:23 AM	08:29 AM	08:36 AM	08:38 AM
08:45 AM	08:51 AM	08:58 AM	09:01 AM	09:10 AM	09:23 AM	09:29 AM	09:36 AM	09:38 AM
09:45 AM	09:51 AM	09:58 AM	10:01 AM	10:10 AM	10:23 AM	10:29 AM	10:36 AM	10:38 AM
10:45 AM	10:51 AM	10:58 AM	11:01 AM	11:10 AM	11:23 AM	11:29 AM	11:36 AM	11:38 AM
11:45 AM	11:51 AM	11:58 AM	12:01 PM	12:10 PM	12:23 PM	12:29 PM	12:36 PM	12:38 PM
12:45 PM	12:51 PM	12:58 PM	01:01 PM	01:10 PM	01:23 PM	01:29 PM	01:36 PM	01:38 PM
01:45 PM	01:51 PM	01:58 PM	02:01 PM	02:10 PM	02:23 PM	02:29 PM	02:36 PM	02:38 PM
02:45 PM	02:51 PM	02:58 PM	03:01 PM	03:10 PM	03:23 PM	03:29 PM	03:36 PM	03:38 PM
03:45 PM	03:51 PM	03:58 PM	04:01 PM	04:10 PM	04:23 PM	04:29 PM	04:36 PM	04:38 PM
04:45 PM	04:51 PM	04:58 PM	05:01 PM	05:10 PM	05:23 PM	05:29 PM	05:36 PM	05:38 PM
05:45 PM	05:51 PM	05:58 PM	06:01 PM	06:10 PM	06:23 PM	06:29 PM	06:36 PM	06:38 PM
06:45 PM	06:51 PM	06:58 PM	07:01 PM	07:10 PM	07:23 PM	07:29 PM	07:36 PM	07:38 PM
07:45 PM	07:51 PM	07:58 PM	08:01 PM	08:10 PM	08:23 PM	08:29 PM	08:36 PM	08:38 PM
08:45 PM	08:51 PM	08:58 PM	09:01 PM	09:10 PM	09:23 PM	09:29 PM	09:36 PM	09:38 PM
09:45 PM	09:51 PM	09:58 PM	10:01 PM	10:10 PM	10:23 PM	10:29 PM	10:36 PM	10:38 PM

Wailuku Loop B

Leave Queen Ka'ahumanu Center	Maui Community College	Wailuku Community Center	Hale Mahaolu Ekolu	Post Office	State Government Center	Waiale/ Wailinu	Maui Memorial Hospital	Arrive Queen Ka'ahumanu Center
07:15 AM	07:17 AM	07:24 AM	07:30 AM	07:43 AM	07:52 AM	07:55 AM	08:02 AM	08:08 AM
08:15 AM	08:17 AM	08:24 AM	08:30 AM	08:43 AM	08:52 AM	08:55 AM	09:02 AM	09:08 AM
09:15 AM	09:17 AM	09:24 AM	09:30 AM	09:43 AM	09:52 AM	09:55 AM	10:02 AM	10:08 AM
10:15 AM	10:17 AM	10:24 AM	10:30 AM	10:43 AM	10:52 AM	10:55 AM	11:02 AM	11:08 AM
11:15 AM	11:17 AM	11:24 AM	11:30 AM	11:43 AM	11:52 AM	11:55 AM	12:02 PM	12:08 PM
12:15 PM	12:17 PM	12:24 PM	12:30 PM	12:43 PM	12:52 PM	12:55 PM	01:02 PM	01:08 PM
01:15 PM	01:17 PM	01:24 PM	01:30 PM	01:43 PM	01:52 PM	01:55 PM	02:02 PM	02:08 PM
02:15 PM	02:17 PM	02:24 PM	02:30 PM	02:43 PM	02:52 PM	02:55 PM	03:02 PM	03:08 PM
03:15 PM	03:17 PM	03:24 PM	03:30 PM	03:43 PM	03:52 PM	03:55 PM	04:02 PM	04:08 PM
04:15 PM	04:17 PM	04:24 PM	04:30 PM	04:43 PM	04:52 PM	04:55 PM	05:02 PM	05:08 PM
05:15 PM	05:17 PM	05:24 PM	05:30 PM	05:43 PM	05:52 PM	05:55 PM	06:02 PM	06:08 PM
06:15 PM	06:17 PM	06:24 PM	06:30 PM	06:43 PM	06:52 PM	06:55 PM	07:02 PM	07:08 PM
07:15 PM	07:17 PM	07:24 PM	07:30 PM	07:43 PM	07:52 PM	07:55 PM	08:02 PM	08:08 PM
08:15 PM	08:17 PM	08:24 PM	08:30 PM	08:43 PM	08:52 PM	08:55 PM	09:02 PM	09:08 PM
09:15 PM	09:17 PM	09:24 PM	09:30 PM	09:43 PM	09:52 PM	09:55 PM	10:02 PM	10:08 PM
10:15 PM	10:17 PM	10:24 PM	10:30 PM	10:43 PM	10:52 PM	10:55 PM	11:02 PM	11:08 PM

B. Islander Routes: Kihei, Lahaina, Ha'iku, Makawao, and Lahaina-Napili

Kihei Islander Outbound

Leave Queen Ka'ahumanu Center	State Government Center	Ka Hale A Ke Ola	Maui Ocean Center	S. Kihei @ Uwapo Road	Pi'ilani Shopping Center	Shops at Wailea
05:45 AM	05:53 AM	05:56 AM	06:13 AM	06:20 AM	06:32 AM	06:40 AM
06:15 AM	06:23 AM	06:26 AM	06:43 AM	06:50 AM	07:02 AM	07:10 AM
06:45 AM	06:53 AM	06:56 AM	07:13 AM	07:20 AM	07:32 AM	07:40 AM
07:15 AM	07:23 AM	07:26 AM	07:43 AM	07:50 AM	08:02 AM	08:10 AM
07:45 AM	07:53 AM	07:56 AM	08:13 AM	08:20 AM	08:32 AM	08:40 AM
08:15 AM	08:23 AM	08:26 AM	08:43 AM	08:50 AM	09:02 AM	09:10 AM
08:45 AM	08:53 AM	08:56 AM	09:13 AM	09:20 AM	09:32 AM	09:40 AM
09:15 AM	09:23 AM	09:26 AM	09:43 AM	09:50 AM	10:02 AM	10:10 AM
09:45 AM	09:53 AM	09:56 AM	10:13 AM	10:20 AM	10:32 AM	10:40 AM
10:45 AM	10:53 AM	10:56 AM	11:13 AM	11:20 AM	11:32 AM	11:40 AM
11:45 AM	11:53 AM	11:56 AM	12:13 PM	12:20 PM	12:32 PM	12:40 PM
12:45 PM	12:53 PM	12:56 PM	01:13 PM	01:20 PM	01:32 PM	01:40 PM
01:45 PM	01:53 PM	01:56 PM	02:13 PM	02:20 PM	02:32 PM	02:40 PM
02:45 PM	02:53 PM	02:56 PM	03:13 PM	03:20 PM	03:32 PM	03:40 PM
03:15 PM	03:23 PM	03:26 PM	03:43 PM	03:50 PM	04:02 PM	04:10 PM
03:45 PM	03:53 PM	03:56 PM	04:13 PM	04:20 PM	04:32 PM	04:40 PM
04:15 PM	04:23 PM	04:26 PM	04:43 PM	04:50 PM	05:02 PM	05:10 PM
04:45 PM	04:53 PM	04:56 PM	05:13 PM	05:20 PM	05:32 PM	05:40 PM
05:15 PM	05:23 PM	05:26 PM	05:43 PM	05:50 PM	06:02 PM	06:10 PM
05:45 PM	05:53 PM	05:56 PM	06:13 PM	06:20 PM	06:32 PM	06:40 PM
06:15 PM	06:23 PM	06:26 PM	06:43 PM	06:50 PM	07:02 PM	07:10 PM
06:45 PM	06:53 PM	06:56 PM	07:13 PM	07:20 PM	07:32 PM	07:40 PM
07:45 PM	07:53 PM	07:56 PM	08:13 PM	08:20 PM	08:32 PM	08:40 PM
08:45 PM	08:53 PM	08:56 PM	09:13 PM	09:20 PM	09:32 PM	09:40 PM
09:45 PM	09:53 PM	09:56 PM	10:13 PM	10:20 PM	10:32 PM	10:40 PM

Lahaina Islander Outbound

Leave Queen Ka'ahumanu Center	Maui Marketplace	Hana Hwy/ Dairy Rd	Maui Ocean Center	Arrive Wharf Cinema Center
05:45 AM	05:50 AM	05:54 AM	06:11 AM	06:39 AM
06:15 AM	06:20 AM	06:24 AM	06:41 AM	07:09 AM
06:45 AM	06:50 AM	06:54 AM	07:11 AM	07:39 AM
07:15 AM	07:20 AM	07:24 AM	07:41 AM	08:09 AM
07:45 AM	07:50 AM	07:54 AM	08:11 AM	08:39 AM
08:15 AM	08:20 AM	08:24 AM	08:41 AM	09:09 AM
08:45 AM	08:50 AM	08:54 AM	09:11 AM	09:39 AM
09:15 AM	09:20 AM	09:24 AM	09:41 AM	10:09 AM
09:45 AM	09:50 AM	09:54 AM	10:11 AM	10:39 AM
10:45 AM	10:50 AM	10:54 AM	11:11 AM	11:39 AM
11:45 AM	11:50 AM	11:54 AM	12:11 PM	12:39 PM
12:45 PM	12:50 PM	12:54 PM	01:11 PM	01:39 PM
01:45 PM	01:50 PM	01:54 PM	02:11 PM	02:39 PM
02:45 PM	02:50 PM	02:54 PM	03:11 PM	03:39 PM
03:15 PM	03:50 PM	03:54 PM	04:11 PM	04:39 PM
03:45 PM	04:20 PM	04:24 PM	04:41 PM	05:09 PM
04:15 PM	04:50 PM	04:54 PM	05:11 PM	05:39 PM
04:45 PM	05:20 PM	05:24 PM	05:41 PM	06:09 PM
05:15 PM	05:50 PM	05:54 PM	06:11 PM	06:39 PM
05:45 PM	06:20 PM	06:24 PM	06:41 PM	07:09 PM
06:15 PM	06:50 PM	06:54 PM	07:11 PM	07:39 PM
06:45 PM	07:20 PM	07:24 PM	07:41 PM	08:09 PM
07:45 PM	07:50 PM	07:54 PM	08:11 PM	08:39 PM
08:45 PM	08:50 PM	08:54 PM	09:11 PM	09:39 PM
09:45 PM	09:50 PM	09:54 PM	10:11 PM	10:39 PM

Ha'iku Islander Outbound

Leave Queen Ka'ahumanu Center	Kaunoa	Pa'ia Village	Ha'iku Community Center	Arrive Ha'iku Market Place
05:45 AM	05:53 AM	06:10 AM	06:18 AM	06:26 AM
07:15 AM	07:23 AM	07:40 AM	07:48 AM	07:56 AM
08:45 AM	08:53 AM	09:10 AM	09:18 AM	09:26 AM
10:15 AM	10:23 AM	10:40 AM	10:48 AM	10:56 AM
11:45 AM	11:53 AM	12:10 PM	12:18 PM	12:26 PM
01:15 PM	01:23 PM	01:40 PM	01:48 PM	01:56 PM
02:45 PM	02:53 PM	03:10 PM	03:18 PM	03:26 PM
04:15 PM	04:23 PM	04:40 PM	04:48 PM	04:56 PM
05:45 PM	05:53 PM	06:10 PM	06:18 PM	06:26 PM
07:15 PM	07:23 PM	07:40 PM	07:48 PM	07:56 PM
08:45 PM	08:53 PM	09:10 PM	09:18 PM	09:26 PM

Makawao Islander Outbound

Leave Queen Ka'ahumanu Center	Kahului Airport	Haleakala@ Hali'imaile	Pukalani Terrace Shop. Center	Arrive Downtown Makawao
05:45 AM	05:55 AM	06:10 AM	06:14 AM	06:25 AM
07:15 AM	07:25 AM	07:40 AM	07:44 AM	07:55 AM
08:45 AM	08:55 AM	09:10 AM	09:14 AM	09:25 AM
10:15 AM	10:25 AM	10:40 AM	10:44 AM	10:55 AM
11:45 AM	11:55 AM	12:10 PM	12:14 PM	12:25 PM
01:15 PM	01:25 PM	01:40 PM	01:44 PM	01:55 PM
02:45 PM	02:55 PM	03:10 PM	03:14 PM	03:25 PM
04:15 PM	04:25 PM	04:40 PM	04:44 PM	04:55 PM
05:45 PM	05:55 PM	06:10 PM	06:14 PM	06:25 PM
07:15 PM	07:25 PM	07:40 PM	07:44 PM	07:55 PM
08:45 PM	08:55 PM	09:10 PM	09:14 PM	09:25 PM

Lahaina-Napili Islander Outbou

Leave Wharf Cinema Center	Ka'anapali	Napili
05:45 AM	05:57 AM	06:10 AM
06:45 AM	06:57 AM	07:10 AM
07:45 AM	07:57 AM	08:10 AM
08:45 AM	08:57 AM	09:10 AM
09:45 AM	09:57 AM	10:10 AM
10:45 AM	10:57 AM	11:10 AM
11:45 AM	11:57 AM	12:10 PM
12:45 PM	12:57 PM	01:10 PM
01:45 PM	01:57 PM	02:10 PM
02:45 PM	02:57 PM	03:10 PM
03:45 PM	03:57 PM	04:10 PM
04:45 PM	04:57 PM	05:10 PM
05:45 PM	05:57 PM	06:10 PM
06:45 PM	06:57 PM	07:10 PM
07:45 PM	07:57 PM	08:10 PM
08:45 PM	08:57 PM	09:10 PM

C. Villager Routes: Kihei and Lahaina

Kihei Villager Inbound

Shops at Wailea	Kamaole Beach III	Kalama Park	Azeka's Place	Pi'ilani Shopping Center	Azeka's Place	Uwapo Road
06:05 AM	06:10 AM	06:15 AM	06:18 AM	06:20 AM	06:22 AM	06:30 AM
06:35 AM	06:40 AM	06:45 AM	06:48 AM	06:50 AM	06:52 AM	07:00 AM
07:05 AM	07:10 AM	07:15 AM	07:18 AM	07:20 AM	07:22 AM	07:30 AM
07:35 AM	07:40 AM	07:45 AM	07:48 AM	07:50 AM	07:52 AM	08:00 AM
08:05 AM	08:10 AM	08:15 AM	08:18 AM	08:20 AM	08:22 AM	08:30 AM
08:35 AM	08:40 AM	08:45 AM	08:48 AM	08:50 AM	08:52 AM	09:00 AM
09:05 AM	09:10 AM	09:15 AM	09:18 AM	09:20 AM	09:22 AM	09:30 AM
09:35 AM	09:40 AM	09:45 AM	09:48 AM	09:50 AM	09:52 AM	10:00 AM
10:05 AM	10:10 AM	10:15 AM	10:18 AM	10:20 AM	10:22 AM	10:30 AM
10:35 AM	10:40 AM	10:45 AM	10:48 AM	10:50 AM	10:52 AM	11:00 AM
11:05 AM	11:10 AM	11:15 AM	11:18 AM	11:20 AM	11:22 AM	11:30 AM
11:35 AM	11:40 AM	11:45 AM	11:48 AM	11:50 AM	11:52 AM	12:00 PM
12:05 PM	12:10 PM	12:15 PM	12:18 PM	12:20 PM	12:22 PM	12:30 PM
12:35 PM	12:40 PM	12:45 PM	12:48 PM	12:50 PM	12:52 PM	01:00 PM
01:05 PM	01:10 PM	01:15 PM	01:18 PM	01:20 PM	01:22 PM	01:30 PM
01:35 PM	01:40 PM	01:45 PM	01:48 PM	01:50 PM	01:52 PM	02:00 PM
02:05 PM	02:10 PM	02:15 PM	02:18 PM	02:20 PM	02:22 PM	02:30 PM
02:35 PM	02:40 PM	02:45 PM	02:48 PM	02:50 PM	02:52 PM	03:00 PM
03:05 PM	03:10 PM	03:15 PM	03:18 PM	03:20 PM	03:22 PM	03:30 PM
03:35 PM	03:40 PM	03:45 PM	03:48 PM	03:50 PM	03:52 PM	04:00 PM
04:05 PM	04:10 PM	04:15 PM	04:18 PM	04:20 PM	04:22 PM	04:30 PM
04:35 PM	04:40 PM	04:45 PM	04:48 PM	04:50 PM	04:52 PM	05:00 PM
05:05 PM	05:10 PM	05:15 PM	05:18 PM	05:20 PM	05:22 PM	05:30 PM
05:35 PM	05:40 PM	05:45 PM	05:48 PM	05:50 PM	05:52 PM	06:00 PM
06:05 PM	06:10 PM	06:15 PM	06:18 PM	06:20 PM	06:22 PM	06:30 PM
06:35 PM	06:40 PM	06:45 PM	06:48 PM	06:50 PM	06:52 PM	07:00 PM
07:05 PM	07:10 PM	07:15 PM	07:18 PM	07:20 PM	07:22 PM	07:30 PM
07:35 PM	07:40 PM	07:45 PM	07:48 PM	07:50 PM	07:52 PM	08:00 PM
08:05 PM	08:10 PM	08:15 PM	08:18 PM	08:20 PM	08:22 PM	08:30 PM
08:35 PM	08:40 PM	08:45 PM	08:48 PM	08:50 PM	08:52 PM	09:00 PM
09:05 PM	09:10 PM	09:15 PM	09:18 PM	09:20 PM	09:22 PM	09:30 PM
09:35 PM	09:40 PM	09:45 PM	09:48 PM	09:50 PM	09:52 PM	10:00 PM

Lahaina Villager Inbound

Lahainaluna at Kelawea	Lahaina Cannery Mall	Arrive Wharf Cinema Center	Leave Wharf Cinema Center	Lahaina Youth Center
			05:44 AM	05:53 AM
06:22 AM	06:28 AM	06:39 AM	06:44 AM	06:53 AM
07:22 AM	07:28 AM	07:39 AM	07:44 AM	07:53 AM
08:22 AM	08:28 AM	08:39 AM	08:44 AM	08:53 AM
09:22 AM	09:28 AM	09:39 AM	09:44 AM	09:53 AM
10:22 AM	10:28 AM	10:39 AM	10:44 AM	10:53 AM
11:22 AM	11:28 AM	11:39 AM	11:44 AM	11:53 AM
12:22 PM	12:28 PM	12:39 PM	12:44 PM	12:53 PM
01:22 PM	01:28 PM	01:39 PM	01:44 PM	01:53 PM
02:22 PM	02:28 PM	02:39 PM	02:44 PM	02:53 PM
03:22 PM	03:28 PM	03:39 PM	03:44 PM	03:53 PM
04:22 PM	04:28 PM	04:39 PM	04:44 PM	04:53 PM
05:22 PM	05:28 PM	05:39 PM	05:44 PM	05:53 PM
06:22 PM	06:28 PM	06:39 PM	06:44 PM	06:53 PM
07:22 PM	07:28 PM	07:39 PM	07:44 PM	07:53 PM
08:22 PM	08:28 PM	08:39 PM	08:44 PM	08:53 PM
09:22 PM	09:28 PM	09:39 PM	09:44 PM	09:53 PM

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